WESTERN AUSTRALIAN ELECTRICITY REVIEW BOARD

No. 1 of 2016

B E T W E E N:

INDEPENDENT MARKET OPERATOR (ABN 95 221 850 093)

Applicant

and

VINALCO ENERGY PTY LTD (ACN 137 532 300) Respondent

PARTIES' STATEMENT OF AGREED FACTS AND ISSUES AND JOINT SUBMISSIONS ON LIABILITY AND PENALTY

STATEMENT OF AGREED FACTS AND ISSUES

A. INTRODUCTORY MATTERS

The Applicant

1. The Applicant, the Independent Market Operator (**IMO**), is a body corporate established under regulation 4(1) of the *Electricity Industry (Independent Market Operator) Regulations 2004* (WA). The Applicant's functions are conferred on it by legislation including the *Electricity Industry (Wholesale Electricity Market) Regulations 2004* (WA) (**Regulations**) and the Wholesale Electricity Market Rules (**Market Rules**).[1]

2. Clause 2.1.2 of the Market Rules lists various functions of the Applicant. The functions include "to carry out any other functions conferred, and perform any obligations imposed, on it under these Market Rules".

The Respondent

3. The Respondent, Vinalco Energy Pty Ltd (**Vinalco**), is a corporation incorporated under the *Corporations Act 2001* (Cth) and has its registered address at Forrest Centre, 219 St Georges Terrace, Perth WA 6000.[2] The Respondent is a 100% owned subsidiary of the Electricity Generation and Retail Corporation (t/a Synergy) (**Synergy**) which is established under the *Electricity Corporations Act 2005* (WA). The Respondent is managed independently of Synergy.

4. The Respondent is a Market Participant within the meaning of the Market Rules and is registered under the Market Rules as a Market Generator.[3]

5. The Respondent leases the Muja AB plant from Synergy. The Muja AB plant is comprised of four Balancing Facilities (or 'units'), being Muja G1, Muja G2, Muja G3 and Muja G4.[4]

System Management

6. At the relevant time, System Management had the function of, amongst other things, operating the South West Interconnected System (**SWIS**) in a secure and reliable manner in accordance with the Market Rules.[5] System Management was a segregated business unit within Western Power. From

[1] Regulation 21(1) of the *Electricity Industry (Independent Market Operator) Regulations 2004* (WA).
[2] Parties Statement of Agreed Facts dated 4 November 2016 at [2].
[3] Parties Statement of Agreed Facts dated 4 November 2016 at [3].
[4] Parties Statement of Agreed Facts dated 4 November 2016 at [29].
[5] Parties Statement of Agreed Facts dated 4 November 2016 at [4].

1 July 2016, System Management's functions were transferred to the Australian Energy Market Operator (**AEMO**). System Management is not a party to these proceedings.[6]

Background to the Application

7. The Market Rules govern the operation of the wholesale electricity market (**WEM**) and prescribe the roles and functions of Market Participants and the relevant governance bodies such as the Applicant and the Economic Regulation Authority (**Authority**). Prior to 1 July 2016, the Applicant had, among other functions, the function to monitor compliance with the Market Rules, to investigate potential breaches of the Market Rules and to initiate enforcement action. As described at paragraph 21, the Market Rules have been amended since the Application was filed and, from 1 July 2016, enforcement functions were transferred to the Authority.[7]

8. Clause 7A.2.17 of the Market Rules prohibits Market Participants from offering prices in their Balancing Submissions in excess of their reasonable expectations of the short run marginal cost (**SRMC**) of generating the relevant electricity, when such behaviour relates to market power.[8]

9. In determining whether a Market Participant has made a Balancing Submission in accordance with its obligations under Chapter 7A of the Market Rules, the Applicant may take into account:

   (a) historical Balancing Submissions, including changes made to Balancing Submissions, in which a pattern of behaviour may indicate an intention to create a false impression in the Balancing Market;

   (b) the timeliness and accuracy of notification of Forced Outages, Internal Constraints, External Constraints and any information provided under clauses 7A.2.11 or 7A.2.12 of the Market Rules;

   (c) any information as to whether a unit was not able to comply with a Dispatch Instruction from System Management and the reasons for that non-compliance; and

   (d) any other information that [is] considered by the Applicant to be relevant.[9]

10. Clause 2.16.9B of the Market Rules states that, where the Applicant concludes that prices offered by a Market Generator in its Balancing Submission may exceed the Market Generator's reasonable expectation of the SRMC of generating the relevant electricity and the Applicant considers that the

[6] Parties Statement of Agreed Facts dated 4 November 2016 at [5].
[7] Parties Statement of Agreed Facts dated 4 November 2016 at [16].
[8] Parties Statement of Agreed Facts dated 4 November 2016 at [7].
[9] Parties Statement of Agreed Facts dated 4 November 2016 at [8].

behaviour relates to market power, the Applicant must request an explanation from the Market Participant and advise the Authority of its conclusions.[10]

11. Pursuant to clause 2.16.9B(c) of the Market Rules, on 18 June 2014, the Applicant requested an explanation from the Respondent in respect of certain Balancing Submissions made during the period 23 February 2014 to 24 March 2014 (**First Period**). The Respondent's explanation was provided on 20 June 2014 and published on the Applicant's website. On 23 June 2014, the Applicant advised the Authority of its conclusions pursuant to clause 2.16.9B(d) of the Market Rules.[11]

12. Pursuant to clause 2.16.9B(c) of the Market Rules, on 22 July 2014, the Applicant requested an explanation from the Respondent in respect of certain Balancing Submissions made during the period 9 June 2014 to 30 June 2014 (**Second Period**). The Respondent's explanation was provided on 24 July 2014 and published on the Applicant's website. On 28 July 2014, the Applicant advised the Authority of its conclusions pursuant to clause 2.16.9B(d) of the Market Rules.[12]

13. Clauses 2.16.9E and 2.16.9F of the Market Rules require the Authority, where it receives an advice from the Applicant under clause 2.16.9B of the Market Rules, to investigate the identified behaviour and publish the results of its investigation.[13]

14. The Authority conducted its investigations as required and published the results of the investigations on 30 October 2015. The findings of the investigations are set out in the Authority's confidential Investigation Reports for each period.[14] In summary, the Authority found:

    (a) in the First Period, four prices of the 14 prices offered by the Respondent in Balancing Submissions across the period were above the Authority's estimate of the Respondent's reasonable expectation of the SRMC of generating the relevant electricity. The Authority considered that these were related to market power and contravened clause 7A.2.17 of the Market Rules; and

    (b) in the Second Period, the two prices offered by the Respondent in Balancing Submissions across the period were above the Authority's estimate of the Respondent's reasonable expectation of the SRMC of generating the relevant electricity. The Authority considered that these were related to market power and contravened clause 7A.2.17 of the Market Rules.

[10] Parties Statement of Agreed Facts dated 4 November 2016 at [9].
[11] Parties Statement of Agreed Facts dated 4 November 2016 at [10].
[12] Parties Statement of Agreed Facts dated 4 November 2016 at [11].
[13] Parties Statement of Agreed Facts dated 4 November 2016 at [12].
[14] A copy of the confidential First Investigation Report dated 30 October 2015 is at Tab 84 Vol 3 Page 2046-2147 Applicant's Discovery Bundle. A copy of the confidential Second Investigation Report dated 30 October 2015 is at Tab 84 Vol 3 Page 2148-2236 Applicant's Discovery Bundle.

15. Clause 2.16.9G of the Market Rules provides that, where the Authority concludes that prices in a Balancing Submission, subject to the investigation, exceeded the Market Generator's reasonable expectation of the SRMC of generating the relevant electricity, it must request that the Applicant apply to the Electricity Review Board (**Board**) for an order for contravention of clause 7A.2.17 of the Market Rules. The Authority made such a request on 30 October 2015 regarding the First Period and the Second Period.[15]

16. Clause 2.16.9H of the Market Rules provides that where the Applicant receives a request under clause 2.16.9G of the Market Rules, the Applicant must refer the matter to the Board requesting that a civil penalty be imposed on the relevant Market Participant. No discretion is conferred on the Applicant in that regard.

17. On 5 May 2016, the Applicant applied, pursuant to regulation 32(1) of the Regulations, to the Board for:

    (a) an order that the Respondent contravened clause 7A.2.17 of the Market Rules;

    (b) an order that the Respondent pay to the market operator a civil penalty;

    (c) an order that the Respondent pay the Applicant's costs; and

    (d) such other orders as the Board thinks fit. [16]

18. At the time of the alleged contraventions, the Applicant had functions conferred on it by, amongst other things, the Regulations and the Market Rules. This included the functions of monitoring other Rule Participants' compliance with the Market Rules, investigating potential breaches of the Market Rules, and if thought appropriate, initiating enforcement action under the Regulations and the Market Rules including under clause 2.16.9B of the Market Rules.[17]

19. The Market Rules have been substantially amended since the Application was filed and the functions described in paragraph 21 were transferred to the Authority from 1 July 2016 pursuant to the Market Rules gazetted on 31 May 2016.[18]

20. Capitalised terms in this document have the meaning given to them in the Market Rules in existence immediately prior to the amendments made on 1 July 2016 unless otherwise stated or the context otherwise requires.

[15] Parties Statement of Agreed Facts dated 4 November 2016 at [13].
[16] Parties Statement of Agreed Facts dated 4 November 2016 at [14].
[17] Parties Statement of Agreed Facts dated 4 November 2016 at [15].
[18] Parties Statement of Agreed Facts dated 4 November 2016 at [16].

The Application

21. From 1 July 2016, the Applicant's compliance and enforcement functions were transferred to the Authority and the requirement for the Applicant to take enforcement action pursuant to clauses 2.16.9G and 2.16.9H of the Market Rules was repealed. The exception to this is the present Application. Clause 1.17.6 of the Market Rules, as it exists from 1 July 2016, provides that any Transitional Compliance Functions conferred on the Applicant prior to 1 July 2016 remain conferred on the Applicant until such date as the Minister determines, by written notice published in the *Gazette*, for the purposes of that clause. Transitional Compliance Functions are defined in Chapter 11 of the Market Rules as:

    (a) *the investigation by the IMO of any breaches or potential breaches of clause 7A.2.17 of these Market Rules commenced by the IMO prior to the ERA Transfer Date* [defined as 8:00 AM on 1 July 2016]*; and*

    (b) *the initiation of any enforcement action under the Regulations or these Market Rules in respect of any such investigation.*

22. These proceedings fall within the exception set out in clause 1.17.6 of the Market Rules as it exists from 1 July 2016, as they relate to Transitional Compliance Functions conferred on the Applicant prior to 1 July 2016 and remain conferred on the Applicant until such date as the Minister determines, by written notice published in the *Gazette*, for the purposes of that clause.[19]

23. Transitional Compliance Functions (as defined in the Market Rules as it exists from 1 July 2016) involve the initiation of enforcement action in respect of an investigation by the Applicant of potential breaches of clause 7A.2.17 of the Market Rules which commenced prior to 1 July 2016. These functions therefore remain conferred on the Applicant and the Applicant brings these proceedings in accordance with the findings of the Authority's investigations.[20]

24. For this Statement of Agreed Facts and Issues, the parties have primarily relied on:

    (a) the Authority's Investigation Reports for both the First Period and the Second Period. The Authority's Investigation Reports set out the facts and reasoning supporting the Authority's conclusion that the Respondent contravened clause 7A.2.17 of the Market Rules;

    (b) the report dated 7 April from Merz Consulting titled *Advice on Short Run Marginal Cost for Muja A / B Generators whilst Constrained-on* (**Merz Consulting Report**);

    (c) witness statements from:

[19] Parties Statement of Agreed Facts dated 4 November 2016 at [17].
[20] Parties Statement of Agreed Facts dated 4 November 2016 at [18].

(i) Mr Bruce Layman (the Chief Economist of the Authority) (**Layman Witness Statement**);

(ii) Mr Ronald Roduner (the Managing Director of RnP Corporate Advisory Pty Ltd, engaged by the Authority through Geoff Brown and Associates (**GBA**) to provide advice on the classification of components of the Respondent's SRMC); and

(iii) Mr Paul Gower (General Manager Operations of the Respondent) (**Gower Witness Statement**);

(d) the joint expert report dated 21 April 2017 prepared by Merz Consulting and GBA (**Joint Experts Report**); and

(e) relevant public documents and the discovery provided by the Applicant in the Application.

The discovered documents constitute the documentary evidence underpinning the Authority's Investigation Reports, which includes the documentary evidence and submissions provided by System Management and the Respondent to the Authority during the course of its investigations.

The powers and functions of the Board

25. The Board is established by section 50(1) of the *Energy Arbitration and Review Act 1998* (WA). The Board has the functions conferred on it under the *Electricity Industry Act 2004* (WA) and any other written law.[21]

26. In proceedings before it, the Board is not bound by the rules of evidence and may inform itself as it thinks fit and must act according to equity, good conscience and the substantial merits of the case and without regard to technicalities and forms.[22]

27. Regulation 33 of the Regulations provides that, if the Board determines that a Market Participant has contravened a provision of the Market Rules, the Board may make one or more specified orders including:

(a) if the provision is a civil penalty provision, an order that the Market Participant pay to the market operator a civil penalty of an amount that does not exceed the maximum prescribed for the contravention in Schedule 1 to the Regulations;

(b) an order that the Market Participant take such action, or adopt such practice, as the Board requires for preventing the recurrence of the contravention;

[21] *Energy Arbitration and Review Act 1998* (WA), section 50(2A).
[22] *Energy Arbitration and Review Act 1998* (WA), section 57(2).

(c) an order that the Market Participant implement a specified program for compliance with the Market Rules.

28. Regulation 33(4) of the Regulations provides that, before making an order (under regulation 33), the Board must have regard to all relevant matters including:

(a) the nature and extent of the contravention;

(b) the nature and extent of any loss or damage suffered as a result of the contravention;

(c) the circumstances in which the contravention took place;

(d) whether the participant has previously been found by the Board in proceedings under the Act to have engaged in any similar conduct; and

(e) the consequences of making the order.[23]

29. Regulation 37 of the Regulations provides that a civil penalty received by the market operator must be:

(a) if the Market Rules provide for the distribution of civil penalties received by the market operator in respect of the contravention amongst participants of a particular class – distributed in accordance with the Market Rules; or

(b) if the Market Rules do not provide for such a distribution – credited to the consolidated account.

30. Schedule 1 to the Regulations lists clause 7A.2.17 of the Market Rules as a civil penalty provision and prescribes that the maximum penalty is $50,000 for the first contravention and $100,000 for subsequent contraventions.

31. Clause 7A.2.19 of the Market Rules provides that a civil penalty for a contravention of clause 7A.2.17 of the Market Rules must be distributed amongst all Market Participants in proportion to their Market Fees. This would include the Respondent and its parent company, Synergy, which together pay **[confidential]** of all Market Fees.[24]

32. The parties have prepared joint submissions on penalty which are included with this Statement of Agreed Facts and Issues.

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[23] Those matters are materially the same as are contained in section 76(1) of the *Competition and Consumer Act 2010* (Cth) (governing the imposition of civil penalties for contravention of the competition law) and section 224(2) of the *Australian Consumer Law* (governing the imposition of civil penalties for contraventions of the consumer law).

[24] Market Fees are charged on the basis of MWh in accordance with the settlement procedures in Chapter 9 of the Market Rules. Accordingly, the exact allocation of Market Fees will vary over time.

B. THE WHOLESALE ELECTRICITY MARKET

33. The WEM operates as the energy and capacity market for the SWIS, which is the largest electricity network in Western Australia. The WEM, which has been in operation since September 2006, provides several means by which electricity generators and wholesale purchasers of electricity (such as retailers) are able to purchase and sell electricity and generation capacity on a 'wholesale' basis.

34. As specified by section 123 of the *Electricity Industry Act 2004* (WA), the WEM is governed by the Market Rules, as made and amended from time to time pursuant to the Regulations. Clause 1.2.1 of the Market Rules prescribes the following objectives for the WEM (**WEM Market Objectives**):

    (a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the SWIS;

    (b) to encourage competition among Market Generators and retailers in the SWIS, including by facilitating efficient entry of new competitors;

    (c) to avoid discrimination in the WEM against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;

    (d) to minimise the long-term cost of electricity supplied to customers from the SWIS; and

    (e) to encourage the taking of measures to manage the amount of electricity used and when it is used.

35. In order to meet the WEM Market Objectives, the Market Rules provide for a number of different mechanisms by which electricity generators and consumers are able to trade with each other, in relation to their electricity requirements in the SWIS. These mechanisms include:

    (a) the Reserve Capacity Mechanism, which has been designed to ensure that there is sufficient generation capacity available each year to meet peak electricity demand within the SWIS, including an appropriate amount of excess capacity (or reserve margin), in accordance with the procedures set out in clauses 4.1, 4.8 and 4.9 of the Market Rules;

    (b) Bilateral Contracts, which are trades of energy and capacity that occur between Market Customers and Market Generators, which the market operator does not directly regulate;[25]

[25] However, Market Participants must submit relevant information regarding Bilateral Contracts to the IMO (now AEMO) to ensure the energy positions are incorporated into system scheduling: IMO, *Wholesale Market Design Summary* (24 October 2012) at [9.2] – publicly available but not discovered.

(c) the Short Term Energy Market (**STEM**), which is an energy-based forward contract market that was operated by the Applicant and is now operated by AEMO. The STEM allows participants to trade Bilateral Contract positions. The STEM is run as an auction process for every Trading Interval of each Trading Day in the WEM on a day-ahead basis. The STEM auction process determines a single clearing price for each Trading Interval as well as the quantities that participants have been cleared to sell to or purchase from the market operator;[26]

(d) the Balancing Market, which is a compulsory price-based dispatch and settlement process that provides for settlement of differences as between the STEM contracting position and the actual electricity generated and dispatched by each Market Generator in respect of each Trading Interval;

(e) the Load Following Ancillary Services (**LFAS**) Market, which is the power system security ancillary service under which assigned Market Generators automatically and constantly change their output to compensate for fluctuations in load and intermittent generation; and

(f) Ancillary Services, which are procured by System Management bilaterally with Market Participants and also provided by the Balancing Portfolio.

36. There is also a capacity market which is created by the Reserve Capacity Mechanism and entitles Market Generators to payments for having installed capacity available (even if not called to run). The Reserve Capacity mechanism may fully fund the capital costs for peaking facilities, and contribute towards a base load unit's capital costs.[27]

37. The Balancing Market (and the LFAS Market) was introduced into the WEM as a result of changes to the Market Rules that took effect in 2012.[28]

38. As part of the Balancing Market, a Market Generator is obliged to submit a Balancing Submission to the Applicant by 6pm on a Scheduling Day[29] in respect of each Trading Interval on the next Trading

[26] STEM auction is conducted in accordance with the process specified in clause 6.4 of the Market Rules. See further IMO, *Wholesale Market Design Summary* (24 October 2012) (above note 6) at [9.3]. STEM auctions are now conducted by AEMO.
[27] IMO, *Wholesale Market Design Summary* (24 October 2012) (above note 6) at [7.1].
[28] Prior to these changes there was no contestable balancing market in addition to the STEM, and adjustments to demand requirements from the STEM were managed by System Management directing the then Verve Energy to dispatch additional capacity, in exchange for payments described as Marginal Cost Administered Price, or "MCAP", which was determined by a formula specified in the Market Rules: see IMO and Market Reform in "Market Power Implications of the Planned Balancing and Load Following Ancillary Service Market Arrangements", 30 September 2011 at [6.3].
[29] A Scheduling Day in respect of a Trading Day is the calendar day immediately preceding the Trading Day: see Chapter 11 of the Market Rules.

Day.[30] A Trading Day is a period of 24 hours commencing at 8 am and a Trading Interval is a period of 30 minutes commencing on the hour or half hour.[31]

39. A Balancing Submission consists of a series of offers of prices and quantities (or "pairs") of electricity a Market Generator is willing to be dispatched for.[32]

40. Under the Market Rules, unless a Market Generator is part of a Balancing Portfolio, a Market Generator is required by clause 7A.2 of the Market Rules to make a Balancing Submission for each Balancing Facility in the Balancing Market to supply electricity for 30 minute Trading Intervals. The Respondent, despite being a wholly owned subsidiary of Synergy, does not operate a Balancing Facility that is part of the Balancing Portfolio.[33]

41. Market Generators are selected to dispatch electricity based on the price competitiveness of their Balancing Submissions. This is referred to as the Balancing Merit Order (**BMO**).[34] Market Generators making Balancing Submissions that are price competitive enough to be dispatched are 'in merit'. Market Generators whose Balancing Submissions are not price competitive enough to be dispatched are 'out-of-merit'.[35]

42. Under certain circumstances, System Management may dispatch Market Generators who are 'out-of-merit' in order to maintain Power System Security and Power System Reliability. When this occurs, the Market Generator is 'constrained-on-out-of-merit'.[36]

43. Market Generators that are constrained-on-out-of-merit by System Management are paid constrained-on payments, which are based on the price at which the energy has been offered to the Balancing Market with relevant adjustments made according to the Market Rules.[37]

44. The payment to a Market Generator for providing energy into the market is called the Balancing Settlement Amount (*BSA*). The BSA is the Metered Balancing Quantity (*MBQ*) multiplied by the Balancing Price (*BP*). There is an additional payment if a Market Generator is constrained-on-out-of-merit called a constrained-on payment.[38] Constrained-on payments are passed on to Market Customers under the Market Rules.[39]

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[30] See clause 7A.2 of the Market Rules in relation to Balancing Submissions generally.
[31] See Chapter 11 of the Market Rules.
[32] See Chapter 11 of the Market Rules.
[33] Parties Statement of Agreed Facts dated 4 November 2016 at [19].
[34] See Chapter 11 of the Market Rules and clause 7A.3.2 of the Market Rules.
[35] Parties Statement of Agreed Facts dated 4 November 2016 at [20].
[36] Parties Statement of Agreed Facts dated 4 November 2016 at [22].
[37] Parties Statement of Agreed Facts dated 4 November 2016 at [23].
[38] Parties Statement of Agreed Facts dated 4 November 2016 at [21].
[39] Parties Statement of Agreed Facts dated 4 November 2016 at [27].

45. The constrained-on payment is adjusted for the Theoretical Energy Schedule (**TES**) adjustment through clause 6.17.3 of the Market Rules. The TES adjustment represents the amount of energy, in megawatt hours (**MWh**) which should have been produced in a Trading Interval by a unit. The TES calculation is performed after the event using the Balancing Price to determine the 'theoretically optimal' generation schedule which would have produced the most cost efficient outcome for the Trading Interval, considering the starting position of each Market Generator and their individual Ramp Rate Limits. The TES adjustment is an adjustment to the constrained-on payment paid, with the effect that the payment excludes the energy the Market Generator could not avoid generating if it was no longer constrained-on-out-of-merit but was ramping down from the beginning to the end of the Trading Interval. The effect of applying the TES adjustment to a Market Generator constrained-on-out-of-merit is that it is not compensated for the total energy that it produces during a Trading Interval because the Constrained on Quantity excludes the energy that the Market Generator would have to produce if it had not been required during the Trading Interval, but could not avoid due to its ramp-down limit.[40]

46. Clause 6.17.3 of the Market Rules illustrates the calculation of prices and quantities used for the constrained-on payments. The constrained-on payment is the difference between the Market Generator's offer price (*B*) and Balancing Price (*BP*), multiplied by the Constrained on Quantity (*ConQN*).[41]

47. The total payment to a constrained-on participant (*p*) in the Respondent's position, trading day (*d*) and interval (*t*) is effectively[42]:

$$BSA(p,d,t) = BP(d,t) \times MBQ(p,d,t) + [B(p,d,t) - BP(d,t)] \times ConQN(p,d,t)$$

48. The Authority provided an example of how the mechanism works in its First Investigation Report.[43] A Market Generator was generating at 30 MW throughout a half hour Trading Interval, or a total of 15 MWh. Its ramp down rate is 1 MW per minute. If the Market Generator were no longer constrained-on and its offer price was higher than the Final Balancing Price, then the system would expect it to ramp down to zero MW by the end of the Trading Interval. So, the maximum TES produced while ramping down equates to 15 MW ((30-0)/2) across the Trading Interval (or 7.5 MWh).

49. However, the unit physically generates at 30 MW (15MWh) for the entire Trading Interval because it is constrained-on-out-of-merit. Consequently, the Market Generator receives payment for 15 MWh

[40] Parties Statement of Agreed Facts dated 4 November 2016 at [24].
[41] Parties Statement of Agreed Facts dated 4 November 2016 at [25].
[42] Parties Statement of Agreed Facts dated 4 November 2016 at [26] and clause 9.8.1 of the Market Rules.
[43] First Investigation Report at p 2079.

at the Balancing Price, but for only 7.5 MWh at the premium of its offer price over and above the Balancing Price (due to difference between maximum TES and actual dispatch volumes).

50. If the Market Generator's cost-based offer was $100 per MWh and the Balancing Price was $60 per MWh for the 30 minute Trading Interval, it receives $900 at the Balancing Price (15 MWh times $60 per MWh) and $300 at its offer premium (7.5 MWh at $40 per MWh) for a total of $1,200. However, its cost of generation for the interval is $1,500 (15 MWh times $100 per MWh).

51. The Market Rules relating to the TES adjustment are also explained in Appendix 2 to each of the Authority's Investigation Reports.

52. The above equation shows that a Market Participant only receives its offer price for energy equal to its Constrained on Quantity, and only as the difference between its offer price and the Balancing Price. Therefore, in determining the constrained-on payment, a Market Participant must be able to forecast the Constrained on Quantity that will occur in a Trading Interval as well as the actual Balancing Price for a Trading Interval. Both of these values are difficult to calculate with any certainty at the time a Market Participant submits a Balancing Submission. Further, while inaccuracies in forecasts over a single Trading Interval will result in minor errors in total revenue received, inaccuracies over multiple Trading Intervals can have a significant adverse effect on the total revenue received by a Market Participant, with a consequential negative impact on profitability.

53. The Market Rules restrict the ability of a Market Generator with market power to take advantage of its market power in two ways:

    (a) first, the Market Rules impose a Price Cap;[44] and

    (b) second, the Market Rules prohibit a Market Generator from offering prices in Balancing Submissions which are above a Market Generator's reasonable expectation of SRMC when such behaviour relates to market power.[45]

C. THE MUJA AB PLANT

Background to the Muja AB plant

54. The Respondent operates the Muja AB plant, which is based at Muja, east of Collie. The Muja AB plant was commissioned in April 1966 as a 240 MW coal-fired base load generator.[46]

55. The Muja AB plant is comprised of 4 Balancing Facilities (or 'units'), being Muja G1, Muja G2, Muja G3 and Muja G4.[47]

[44] Market Rules, clause 7A.2.4.
[45] Market Rules, clause 7A.2.17.
[46] Parties Statement of Agreed Facts dated 4 November 2016 at [28].

56. The Muja AB plant was initially commissioned in 1966 and retired in 2007.[48]

57. Following the Varanus Island incident on 3 June 2008, when an explosion and fire on Apache Energy's gas pipeline and plant on Varanus Island caused a full plant shutdown and a significant reduction in WA's energy supply, the Muja AB plant was refurbished. In August 2008, Muja Stage B (comprising of Muja G3 and Muja G4), was urgently returned to service for a period of nearly 8 months to alleviate the gas supply restrictions resulting from the Varanus Island incident.[49]

58. The Muja AB refurbishment work commenced in the second quarter of 2010 and was originally intended to be completed by October 2012. The work involved included refurbishment of the four 60 MW units, the installation of pollution abatement equipment to meet revised environmental licence conditions and a number of smaller new enhancements to the plant such as upgrading the control and instrumentation to the same system as Muja CD. [50]

59. After extensive works to refurbish and repair the units, Muja G4 and Muja G3 were returned to service in February 2013 and April 2013, respectively and were declared to be able to meet their Capacity Credit obligations under the Market Rules on the following dates:

    (a) Muja G4 – 11 February 2013; and

    (b) Muja G3 – 1 April 2013.[51]

60. In September 2013, following a report by KPMG into the viability of the Muja AB refurbishment project, the Western Australian State Government announced that refurbishment of Muja G1 and Muja G2 would be completed and the units would be brought back into service.[52]

61. Muja G2 and Muja G1 were returned to service in late January and February 2014, respectively and were declared to be able to meet their Capacity Credit[53] obligations under the Market Rules on the following dates:

    (a) Muja G2 – 31 January 2014; and

    (b) Muja G1 – 26 February 2014.[54]

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[47] Parties Statement of Agreed Facts dated 4 November 2016 at [29].
[48] Gower Witness Statement at [8].
[49] Gower Witness Statement at [9].
[50] Gower Witness Statement at [13].
[51] Gower Witness Statement at [16].
[52] Gower Witness Statement at [19].
[53] As defined in the Market Rules.
[54] Gower Witness Statement at [23].

Muja AB operating profile

62. Each of the Muja AB units have a maximum generation capacity of 55 MW, a minimum generation capacity of 27.5 MW and a ramp-rate of 1 MW per minute (or 30 MW per 30 minute Trading Interval).[55]

63. The Respondent, through the Gower Witness Statement, submits that in order to maximise the opportunity to generate and receive energy through merchant sales of electricity, in addition to meeting contracted energy requirements, the Muja AB units were run in mid-merit mode, cycling between minimum and maximum load on a daily basis rather than in a two-shifting mode.[56] This operating profile was preferred in order to avoid regular starts and stops which could increase the risk of trips on start-up of the units.[57]

64. Mr Gower submitted that the predictable operating profile meant that generally the Respondent's traders could make Balancing Submissions a day in advance and were not expected to adjust Balancing Submissions except in the event of an unplanned Outage or similar.[58]

65. **[confidential]**

66. Other than to meet its contractual obligations **[confidential]** and to meet its Reserve Capacity obligations, prior to the First Period and the request from System Management, Mr Gower submitted that the Respondent's operating strategy was not to operate Muja G3 and Muja G4 at all until Muja G1 and Muja G2 had successfully completed commissioning. As a result of System Management's request, commissioning activities were reduced in an effort to bring forward the dates that units Muja G1 and Muja G2 could satisfy their Capacity Credit obligations.[59]

67. Consequently, the Respondent claimed all electricity produced during the First Period and Second Period was produced by units that were only operating because System Management constrained-on the units to provide the Power System Security services it required.[60]

68. This is summed up in a letter dated 4 March 2014 the Respondent wrote to the Applicant noting the following matters discussed at a meeting between the Applicant, System Management and the Respondent on 25 February 2014:

> *"System Management require Vinalco Energy's Muja AB units on line for certain intervals in the day (late at night and early in the morning) to assist with system security issues. It was*

[55] Parties Statement of Agreed Facts dated 4 November 2016 at [32].
[56] Gower Witness Statement at [21].
[57] Gower Witness Statement at [21].
[58] Gower Witness Statement at [52].
[59] Gower Witness Statement at [26].
[60] Gower Witness Statement at [86].

recognised that turning the Muja AB units on and off will lead to reliability problems and that it would be difficult to co-ordinate System Management's requirements with the units' start up times, as recorded in the units' standing data.

It was therefore agreed by the IMO and System Management that two units (Muja_G3 and Muja_G4 would be dispatched out of merit continuously by System Management. The dispatch instructions would increase and decrease the required load when and where appropriate for system security. If System Management did not require [the Respondent's] assistance for particular trading intervals, the units would dispatched at their minimum generation level.

The IMO will appreciate that these arrangements are different to the normal or planned operating profile of the units. This has created challenging and dynamic conditions for plant operations and Vinalco Energy's interaction with the market. Vinalco Energy is continuing in its efforts to ensure that System Management's requirements are met and that its obligations under the Market Rules are complied with."

69. As a consequence of the Respondent's operating profile, the Respondent claimed that it did not have a sense of the SRMC of providing the services requested by System Management from the Muja AB units as these were not services ordinarily provided by the Respondent and it was not provided sufficient information from System Management on which to readily base such a calculation.[61]

70. As is set out in the Gower Witness Statement,[62] during the First Period, the Respondent's instructions for operation were based on verbal requests at meetings and email instructions from System Management. The Respondent contends that despite numerous requests from the Respondent to System Management to confirm the length of time when the units would be required to run, System Management failed or refused to provide such confirmation.

71. During the Second Period, there were numerous discussions between System Management and the Respondent in respect of System Management's requirements in June 2014.[63] On 9 June 2014, System Management and the Respondent agreed at a meeting between the parties that three units would operate continuously rather than cycling two units on and off with the fourth unit in a 'warm state' so it could be brought on within 24 hours' notice.[64] However, other options were discussed at

[61] Gower Witness Statement at [53].
[62] Gower Witness Statement at [25] – [47] and [64] – [66].
[63] Gower Witness Statement at [66].
[64] Gower Witness Statement at [66].

the meeting, for example, support from Tesla as well as operating the units at a lower output overnight.[65]

72. Merz Consulting has characterised the situation as follows:

> *"Of importance, is that Vinalco had no commitment from System Management on the duration of operation. Indeed, System Management and the IMO were actively seeking alternatives to dispatching Muja AB during all dispatch periods."*[66]

73. The Applicant does not necessarily agree that the statement the Respondent had "no commitment" from System Management is entirely accurate, however, it appreciates the uncertainty of the requirements for the Respondent in both the First Period and the Second Period. The Applicant also notes that, although it did work with System Management to minimise costs and risk to the market, it does not determine dispatch requirements under the Market Rules.

74. The parties agree that where there is uncertainty of the duration of operations, such as in these circumstances, it was difficult for the Respondent to accurately estimate, and spread, its reasonable costs over a relevant period when the units were expected to run.

D. MUJA TRANSFORMER FAULT

Transformer failures at the Muja substation

75. The Muja AB terminal is one of the largest terminals in the SWIS. It has significant generation connection and connections with neighbouring areas at multiple voltage levels. There are three "bus-tie" transmission system transformers at the Muja substation that transfer power between the three major voltage levels of 330kV, 220kV and 132kV. A diagram of the electricity transmission system is set out in Annexure 1 of the Parties Statement of Agreed Facts dated 4 November 2016.[67] The configuration is critical to maintaining network-wide Power System Security and Power System Reliability and so is designed to the N-1-1 planning criteria in the Western Power Technical Rules (**Technical Rules**) for the SWIS.[68]

76. N-1-1 are particular planning criteria that is specified by the Technical Rules. The N-1-1 criterion applies to those sub-networks of the transmission system where the occurrence of a credible contingency during planned maintenance of another transmission element would otherwise result in the loss of supply to a large number of customers. The N-1-1 criterion requires the network to be designed so that at 80% of system peak load, it can maintain customer supply following two

[65] Gower Witness Statement at [66] and correspondence at Tab 25 and 26.
[66] Merz Consulting Report at [5.5.2].
[67] Parties Statement of Agreed Facts dated 4 November 2016 at [38].
[68] Parties Statement of Agreed Facts dated 4 November 2016 at [33].

contingencies (e.g. the successive loss of two critical transmission plant items by reason of maintenance and forced outage).[69]

77. On 11 September 2012, an internal fault occurred on Muja Bus-Tie Transformer #1 (**BTT1**), resulting in:

(a) a loss of direct connection between 330kV and 132kV networks at the Muja Terminal; and

(b) System Management being placed on "Alert Mode" to plan for further contingencies.

This resulted in the total destruction of BTT1.[70]

78. On 23 February 2014, an internal fault, causally unrelated to the September 2012 BTT1 fault, occurred on Muja Bus-Tie Transformer #2 (**BTT2**) resulting in a number of network and market impacts.[71] The faults on BTT1 and BTT2 are, collectively, referred to in this document as the "**Transformer Failures**".

79. Only one transformer, Muja Bus-Tie Transformer #3 (**BTT3**), which transfers 220kV to 330kV, remained in service.[72]

80. As a consequence of the Transformer Failures, from 23 February 2014, the Great Southern 132kV network was being supplied through two long 132kV transmission lines.

81. The network impacts arising from the Transformer Failures were as follows[73]:

(a) a significantly increased risk of high voltage in the Muja 132kV network, with limited ability to control voltage during periods of low and high power flow; and

(b) a significantly increased risk of voltage instability in the Muja 132kV network, with limited ability to control voltage; and

(c) a significantly increased risk of line thermal overloads in the Bunbury 132kV network for the next credible contingency; and

(d) a significantly increased risk of loss of 220kV supply to the Eastern Goldfields in the event of the failure of BTT3; and

(e) N-1-1 contingencies eventuated. That is, the Transformer Failures represented two contingencies.

[69] Parties Statement of Agreed Facts dated 4 November 2016 at [34].
[70] Parties Statement of Agreed Facts dated 4 November 2016 at [35].
[71] Parties Statement of Agreed Facts dated 4 November 2016 at [36].
[72] Parties Statement of Agreed Facts dated 4 November 2016 at [37].
[73] Parties Statement of Agreed Facts dated 4 November 2016 at [39].

E. RESPONSE TO THE TRANSFORMER FAILURES

First Period

System Management instructions in the First Period

82. As a result of the Transformer Failures, on 23 February 2014, System Management:[74]

    (a) declared the SWIS to be in a "High Risk Operating State" because it had no voltage control in the Great Southern region; and

    (b) sought to dispatch various Muja AB units out-of-merit to maintain Power System Security and Power System Reliability in the Great Southern region.

83. System Management is required under the Market Rules to maintain Power System Security and Power System Reliability in the event of a further contingency, and is permitted under clause 7.6.1D of the Market Rules to dispatch out-of-merit generation to achieve this, if necessary. [75]

84. Throughout the First Period there were a series of communications between the Respondent and System Management in respect of the dispatch of the Muja AB units.[76] Some of the communications are set out below.

85. The Respondent was informed by telephone on or around 7.37am on 23 February 2014 that System Management would require the Respondent to dispatch one of its units as soon as possible.[77]

86. On 24 February 2014, the Respondent sent System Management an email confirming a telephone conversation earlier that day and the synchronisation times of each of the Muja AB units. The email stated:

> *"Unit M4 will be available to synchronise at 2 pm Tuesday 25 Feb (current expectation is that it will be around 10 am). We presume an earlier synchronisation is acceptable. …*
>
> *Unit M3 will be in a position to synchronise at 2pm on Wednesday 26 Feb. If we are able to synchronise earlier we will through our operators let you know.*
>
> *Unit M1 will be [sic] remain in service after commissioning is complete until after unit M3 reaches the Target Generation of your Despatch [sic] Instructions."*[78]

[74] Parties Statement of Agreed Facts dated 4 November 2016 at [41].
[75] Parties Statement of Agreed Facts dated 4 November 2016 at [42].
[76] See Tab 97, Vol 5 and Tab 101, Vol 6 Applicant's Discovery Bundle.
[77] Gower Witness Statement at [28].
[78] System Management Response to ERA Information Request 25 August at Tab 97, Vol 5 Page 3366 Applicant's Discovery Bundle.

87. On 25 February 2014, System Management, the Respondent and the Applicant met. The meeting notes stated the purpose of the meeting, being, "Update of the situation and going forward". The summary of the meeting is in bullet point form and provides[79]:

> *"- current situation – long issue*
>
> *- 2 units will be running*
>
> *- Coal not an issue*
>
> *- Manning for 2 okay*
>
> *- Don't rely on Operator to follow Di's [Dispatch Instructions] – controller to contact*
>
> *- Schedule – updated through Dispatch Advisory*
>
> *- Load wise 27.5 overnight*
>
> *- Sync time in warm state – 72 hours – an issue."*

88. On 7 March 2014, System Management provided the Respondent with the requirements for the weekend in an email stating:

> *"We need:*
>
> *1 Unit for 30MW gross at all times.*
>
> *1 Unit available to be on line on 1 Hour Call."*

89. The Respondent replied to the email above within the hour stating that it had been "completed already".[80]

90. On 7 March 2017, a meeting was held which was attended by the Respondent, System Management and the Applicant. Following the meeting the Respondent sent an email to the attendees outlining how the Respondent could run a unit continuously at 27.5 MW and have another unit in a state of readiness to be able to synchronise within one hour. The email outlines a number of issues that needed to be overcome to achieve this option and suggests how the issues could be overcome and stated that the Respondent has not calculated the costs of operating in this manner.[81]

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[79] Minutes of meeting 25 February 2014 attended by the Applicant, System Management and the Respondent at Tab 97 Vol 5 Page 3403-3405 Applicant's Discovery Bundle.
[80] System Management Response to ERA Information Request 25 August at Tab 97, Vol 5 Pages 3363-3365 Applicant's Discovery Bundle.
[81] System Management Response to ERA Information Request 25 August at Tab 97, Vol 5 Page 3392 Applicant's Discovery Bundle.

91. On 23 March 2014:

(a) the Respondent requested permission to commit Muja G1 from the commencement of Trading Interval starting at 7:00am on Monday 24 March;[82]

(b) the Respondent requested permission to de-commit Muja G3 from the Trading Interval staring at 7:00pm ramp down to be de-synch for 19:30 on Monday 24 March 2014;[83]

(c) the Respondent sent System Management an email providing an approximate time for unit movements on Monday 24 March 2014 following a request from System Management. which were accepted and noted by System Management;[84]

92. On 24 March 2014, the Respondent sent System Management an email providing amendments to the timeline for the commitment and de-commitment of the Muja AB units.[85]

The Respondent's understanding of System Management instructions in the First Period

93. During the Authority's investigation, it noted the Respondent's submission that System Management had instructed it to offer prices so as to stay out of merit in the BMO and that the Respondent had implemented that strategy.[86]

94. As part of the First Investigation, the Respondent submitted to the Authority that:

> *"Vinalco instructed the traders that the primary objective was to stay outside of the BMO, so that Vinalco could meet System Management's Dispatch Instructions. As a consequence, when the Forecasting Balancing Price reported by the IMO indicated that the Balancing Price may exceed Vinalco's offer prices, Vinalco instructed its traders to submit higher prices in three tiered levels, namely $120/MWh, $150/MWh and $305/MWh. Some of these bids were higher than Vinalco's working estimate of SRMC."*[87]

95. The Authority accepted in its Investigation Report for the First Period that the Respondent's operating strategy involved attempting to offer prices so as to stay out-of-merit, however the

[82] System Management Response to ERA Information Request 25 August at Tab 97, Vol 5 Page 3361 Applicant's Discovery Bundle.
[83] System Management Response to ERA Information Request 25 August at Tab 97, Vol 5 Page 3390 Applicant's Discovery Bundle.
[84] System Management Response to ERA Information Request 25 August at Tab 97, Vol 5 Pages 3400-3402 Applicant's Discovery Bundle.
[85] System Management Response to ERA Information Request 25 August at Tab 97, Vol 5 Pages 3400-3402 Applicant's Discovery Bundle.
[86] First Investigation Report at pp 2123-2124; Vinalco Energy Response to ERA Information Request 25 August 2014 at Tab 96 Vol 5 at Page 3227 Applicant's Discovery Bundle.
[87] There was a fourth pricing behaviour of $304.95 which is not specifically referenced.

Authority was unable to find any evidence of any instructions from System Management that this was either required or desirable.[88]

96. In its First Investigation Report, the Authority noted that System Management claimed that it verbally informed the Respondent that it should immediately advise System Management if it received a Dispatch Instruction to reduce production to zero MW.[89] The Authority was unable to find any written correspondence to this effect, although the First Investigation Report notes that evidence supports the fact that specific instructions were given by System Management to the Respondent to ignore Dispatch Instructions.[90]

97. System Management claims that if a spurious zero MW Dispatch Instruction had been issued, standard practice would see the Market Participant contacted as soon as practicable and advised to ignore the Dispatch Instruction and a verbal instruction would be given.[91] The risk of this occurring was increased by the way in which System Management's Real-time Dispatch Engine (**RTDE**) operated at the time. As noted by Mr Gower:

> "*The RTDE, during periods where voltage control was not required, could not automatically constrain [the Respondent] "on" if the Respondent was "in merit" but fell Out of Merit in the following Trading Interval. This would have resulted in the Respondent receiving a Dispatch Instruction to dispatch to zero MW. The Market Rules require [the Respondent] would be unable to assist System Management by providing voltage support to address the High Risk Operating State. This is because once a unit was turned off, [the Respondent] would require a significant period of time to ramp the units back up (17 hours from a warm start, 3 days from a cold start).*"[92]

98. System Management claims that it had informed the Respondent that its operators should ring the control room if they received Dispatch Instructions that de-committed their machines below the constrained-on requirement.[93] Mr Gower stated that:

> *"I instructed [the Respondent's] unit operators that they should seek confirmation by telephone in the event of any Dispatch Instruction requiring the units to effect a zero MW dispatch. However, given the critical importance of the Power Station in assisting System Management maintain the security and reliability of the system, I formed the view that it was*

[88] First Investigation Report at p 2126-2130.
[89] First Investigation Report at p 2126.
[90] First Investigation Report at p 2128.
[91] System Management response to the Economic Regulation Authority dated 31 March 2015 at Tab 34 Vol 1 Page 298 Applicant's Discovery Bundle.
[92] Gower Witness Statement at [39].
[93] System Management response to the Economic Regulation Authority dated 31 March 2015 at Tab 34 Vol 1 Page 298 Applicant's Discovery Bundle.

necessary to avoid Dispatch Instructions for a zero MW dispatch in case of operator or trader error by keeping the units outside of the BMO."[94]

99. The Respondent further submitted to the Authority during its investigation that it was told by System Management to stay out of merit in the BMO.[95] The Authority was unable to substantiate this claim and System Management denied directing Market Generators on how to price their offers into the market.[96] In the Gower Witness Statement, Mr Gower maintains that representatives of System Management said words to the effect that he should ensure the Muja AB units stayed out of merit in the BMO to avoid receiving Dispatch Instructions through the RTDE to go to zero MW.[97]

100. Mr Gower has stated that his understanding of System Management's instructions in the First Period provided the Respondent with three options:

(a) bid well below forecast marginal price and in merit; or

(b) bid at the estimated SRMC of the units except where such bids risked being 'in merit' in which case bid the units at higher prices in order to ensure the Respondent remained out of merit in the BMO; or

(c) bid at the estimated SRMC of the units at all times and risk being dispatched to zero MW, resulting in the Muja units being unavailable to meet System Management's requirements which would lead to serious outcomes from a Power System Security point of view, such as blackouts.[98]

101. Mr Gower stated that he chose the second option as it would provide the service being asked for by System Management, was commercially satisfactory and would not lead to the Respondent being perceived as being responsible for causing blackouts in the Great Southern region.[99] The Respondent is also of the view that the second option best met the WEM Market Objectives and the objectives of the Balancing Market set out in clause 7A.1.3 of the Market Rules.

The Respondent's Balancing Submissions in the First Period

102. During the First Period, the Respondent offered prices in Balancing Submissions for Muja G1, Muja G3 and Muja G4 in respect of 1,440 Trading Intervals and its units were dispatched for 2,631

[94] Gower Witness Statement at [41].
[95] First Investigation Report at p 2127.
[96] First Investigation Report at p 2135.
[97] Gower Witness Statement at [37] - [42].
[98] Gower Witness Statement at [43].
[99] Gower Witness Statement at [45].

Trading Intervals.[100] The prices offered by the Respondent ranged from $97.67/MWh to $305.00/MWh. The Applicant referred those prices to the Authority for investigation.[101]

103. The prices offered by the Respondent for each Trading Interval during the First Period that the Authority found to be above the Respondent's reasonable expectation of SRMC are set out in Appendix 2 to the Applicant's Amended Statement of Facts and Contentions dated 8 November 2016.

Second Period

104. The Second Period occurred during the period 9 June 2014 to 30 June 2014 as a result of a Planned Outage at the Worsley Co-Generation Plant. The Worsley Co-Generation Plant is a major base load generator in the South West and makes a significant contribution to Power System Security and Power System Reliability in the region. [102] To allow for the Planned Outage, System Management decided to increase the generation dispatch requirement from the Respondent's Muja units to maintain Power System Security and Power System Reliability. System Management requested the Respondent to increase output from two Muja units at 30 MW to three Muja units at their minimum generation level of 27.5 MW with the fourth Muja unit to be available on 24 hour recall.[103]

System Management instructions in the Second Period

105. On 26 March 2014, the RTDE was upgraded to automatically enable the Respondent to generate more than 30 MW if its offer price was in merit.[104] The effect of this was that the RTDE issue was not an influencing factor in the pricing behaviour of the Respondent from that point and was therefore not relevant to the Second Period.

106. Between 15 May 2014 and 10 June 2014, System Management and the Respondent exchanged a number of emails regarding System Management's requirements as a result of the Worsley Plant Planned Outage to occur in June 2014 and how they could be met by the Respondent's units.[105]

107. On 9 June 2014, a meeting was held to discuss the dispatching of the Muja units commencing from 10 June 2014 for a period of three weeks covering the duration of the Worsley Planned Outage. The meeting was attended by the Respondent, System Management and the Applicant. A record of the meeting was sent by System Management the following day concluding that System Management

[100] Parties' Statement of Agreed Facts at [46].
[101] First Investigation Report at pp 2058-2059; IMO Advice to the Economic Regulation Authority under clause 2.16.9B(d) of Market Rules dated 23 June 2014 at Tab 93 Vol 5 Page 3054-3173 Applicant's Discovery Bundle.
[102] Parties Statement of Agreed Facts at [44].
[103] Second Investigation Report at p 2159; Vinalco Energy Response to ERA Information Request 25 August 2014 at Tab 96 Vol 5 at Page 3226 Applicant's Discovery Bundle.
[104] First Investigation Report at p 2126.
[105] System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Pages 3860-3872 Applicant's Discovery Bundle.

would dispatch the Respondent's units in accordance with the agreement to run three Muja AB units per the Respondent's lowest cost proposal.[106]

108. System Management control room log book extracts record a telephone communication with the Respondent on 9 June 2014 at 19:02, providing:[107]

> *"Muja AB Controller advised MU4 ready to run and synch this evening, or 0500 Tues, Trader has put in for 1400 Tues. Advised Controller to go by Trader's bids."*

109. On 10 June 2014, the Respondent:

(a) emailed System Management, copying the Applicant, seeking to clarify with all parties System Management's requirements of the Respondent stating:[108]

> *"Your requirements are three (3) Vinalco units online synchronised and generating, namely units M1, M2 and M4. The fourth Vinalco unit, namely unit M3 available on cold start within 24 hours;"*

and

(b) sent a letter to System Management providing:[109]

(i) confirmation that all four of the Respondent's units were available for dispatch in the period 10 June to 30 June 2014 inclusive with the prerequisite notification as per the Respondent's Standing Data;

(ii) that the Respondent's understanding of the situation was that System Management required and would issue Dispatch Instructions for three of the Respondent's units to satisfy its current system security requirements;

(iii) if System Management decides that loads or system events require it, the fourth unit will be brought on line under a Dispatch Instruction in accordance with its Standing Data and can be operated concurrently with the other units but only as a short term contingency measure; and

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[106] System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Pages 3924-3929 Applicant's Discovery Bundle.
[107] System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Page 3943 Applicant's Discovery Bundle.
[108] System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Page 3930 Applicant's Discovery Bundle.
[109] System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Page 3907 Applicant's Discovery Bundle.

(iv) that prolonged operation of all units concurrently is not possible with the current level of resources at the site.

110. System Management control room log book extracts record two telephone communications with the Respondent on 11 June 2014 at 07:27 and 07:41, providing:[110]

> *"Contacted MU A re: DI protocol – advised of possible verbal supported by electronic DI issue this evening. Contacted after enquiry made through Todd Duckworth.*
>
> *and*
>
> *MU 4 mill trip – in process of establishing replacement mill."*

111. On 12 June 2014, the Respondent emailed System Management regarding the out of merit dispatch of the Respondent's units, stating[111]:

> *"Given all the processes and procedures that we have to follow could [you] please advise why the units are being dispatched below our minimum generation. Currently and until Vinalco can see and accept a lower value our minimum stable generation loading level is 27.5 MW net."*

112. System Management control room log book extracts record a telephone communication with the Respondent on 12 June 2014 at 20:13, providing:[112]

> *"MU 1, 2 & 4 advise of 27.5MW set points according to DI's issued. We had previous 28MW constraints published that resulted in 26MW sent out which is below minimum."*

113. On 16 June 2014, System Management met with the Respondent to discuss the possibility of a Dispatch Support Service (**DSS**) contract with the Respondent (and other Market Participants) as a result of the failure of two transmission failures at the Muja substation.[113]

114. System Management control room log book extracts records three telephone communications with the Respondent on 16 June 2014 at 18:07, 19:20 and 20:05, providing:[114]

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[110] System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Page 3943 Applicant's Discovery Bundle.
[111] System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Page 3904 Applicant's Discovery Bundle.
[112] System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Page 3943 Applicant's Discovery Bundle.
[113] System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Page 3934 Applicant's Discovery Bundle.
[114] System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Page 3944 Applicant's Discovery Bundle.

"MU 1, 2 & 4 Min constrain raised from 30MW to 45MW ea. Constraint published due to O/L on MRR – PIC 81 for loss of WAI-RO81.

and

MU 1, 2 & 4 Min constrain lowered from 45MW to 30MW & published. O/L issues have cleared as load drops.

and

MU 1 Testing low load operation so changed Min constraint to 27MW which gave them a DI of 25MW for 2030. This was the value they required."

115. System Management control room log book extracts records two telephone communications with the Respondent on 17 June 2014 at 06:52 and 17:34, providing:[115]

"MU 1 low load run complete Min DI ↑ 30MW Constraint Data published.

and

MU 1, 2 & 4 Min DI from 30 ↑ 45ea to reduce O/L on PIC-MRR81 & load on PIC area after trip of PIC-MRR81. Constraint Data published."

116. On 20 June 2014, the Respondent sent System Management an email seeking to commit Muja G3 from the commencement of Trading Interval starting at 2:00pm on 20 June 2014 and de-commit Muja G2 from the commencement of Trading Interval starting at 6:30pm on 20 June 2014.[116]

117. On 24 June 2014, a meeting was held to discuss the reliability of the Respondent's Muja AB generation and the dispatch of the units[117] and discuss the reliability / commercial benefits of cycling the Respondent's units.[118] The meeting was attended by the Respondent, System Management and the Applicant. At the meeting it was determined that cycling the units on a daily basis was not a viable option and as such the Respondent would need to bid to reflect the preference so that System Management could dispatch it as required.[119] Further action items from the meeting were:[120]

[115] System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Page 3944 Applicant's Discovery Bundle.
[116] System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Pages 3896-3897 Applicant's Discovery Bundle.
[117] System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Page 3936 Applicant's Discovery Bundle.
[118] System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Pages 3940-3942 Applicant's Discovery Bundle.
[119] There are two sets of minutes for the meeting one produced by System Management and the other by the IMO, see System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Pages 3936-3939 and 3940-3942.

(a) the Respondent and System Management to liaise on an ongoing basis regarding unit prioritisation;

(b) a representative of both System Management and the Respondent to brief staff regarding enhanced communication and feedback between the Respondent's operators and System Managements controllers; and

(c) System Management to continue to dispatch in order to optimise reliability of the Respondent's units and system security and reliability.

118. On 26 June 2014, the Respondent sent System Management an email following the meeting held on 24 June 2014 providing the "merit order for the units" and that the Respondent would be "updating our pricing within the next hour to take effect from 1330-1400 interval".[121]

119. On 30 June 2014, System Management emailed the Respondent and the Applicant regarding Muja AB operation, stating:[122]

> *"System Management is no longer certain that the way Muja A/B had been dispatched is the most cost effective outcome for the Market. The discussions we (System Management, Vinalco, IMO) had before highlighted that running the units at minimum all day was the most economic way to deal with the generation requirement for the Muja 132KV load area. This assumption may not be valid and we would like to explore the possible options. System Management has no knowledge of the prices and we need to check that the previous method of dispatch still creates the desired outcome or a new dispatch method should be adapted [sic]."*

The Respondent's understanding of System Management instructions in the Second Period

120. The Respondent has claimed that the pricing behaviour the subject of the Second Investigation was not related to market power and instead pricing during the Second Period reflected a co-operative approach in attempting to address what would otherwise have been a High Risk Operating State in the SWIS in compliance with requests from System Management.[123]

121. However, the instructions for dispatch requirements for the Second Period were changed in the early days of June and confirmed just prior to the Planned Outage. Initially the Respondent was required

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[120]System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Page 3939 Applicant's Discovery Bundle.
[121] System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Page 3890 Applicant's Discovery Bundle.
[122] System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Page 3882 Applicant's Discovery Bundle.
[123] Second Investigation Report at p 2165.

to have two units required for morning peaks with a third required for evening peaks. System Management noted it was difficult to forecast the exact output quantities that would be required from each of the units due to the dynamic relationship between load and intermittent generation in the area.[124] For the reasons set out at paragraphs 70 to 74 above, the lack of certainty from System Management made it very difficult for the Respondent to accurately estimate its reasonable costs of operating the units. Ultimately, on 9 June 2014, System Management determined that three units would operate continuously at minimum generation rather than cycling two units on and off. The Respondent was required to retain a fourth unit in a 'warm state' so it could be brought on within 24 hours' notice.[125] Due to the late change in the operating profile required by System Management for the Second Period, the Respondent did not have an accurate estimate of SRMC for the new dispatch requirements.

The Respondent's Balancing Submissions in the Second Period

122. During the Second Period, the Respondent offered prices in Balancing Submissions for all Muja AB units in respect of 1,056 Trading Intervals and its units were dispatched for 2,732 Trading Intervals.[126] The Respondent offered two prices; $243.62/MWh and $305.00/MWh. The Applicant referred those prices to the Authority for investigation.[127]

123. The prices offered by the Respondent for each Trading Interval during the Second Period that the Authority found to be above the Respondent's reasonable expectation of SRMC are set out in Appendix 2 to the Applicant's Amended Statement of Facts and Contentions dated 8 November 2016.

F. OPTIONS AVAILABLE TO SYSTEM MANAGEMENT

124. System Management is responsible for the operation and control of Market Generator units, transmission and distribution networks, and large customer retailer supply management including demand side management and procurement of Ancillary Services. To manage the real-time operation of the power system, System Management issues Dispatch Instructions to Market Generators through its RTDE which, under normal operation once the Applicant provides the BMO, automatically issues Dispatch Instructions to Market Generators until demand is met.[128]

125. If a Market Generator's price is competitive enough to be dispatched by System Management in the BMO before demand is met, the Market Generator is said to be 'in merit' and will receive a Dispatch

[124] Gower Witness Statement at [66(g)].
[125] Gower Witness Statement at [66(j)].
[126] Parties Statement of Agreed Facts at [47].
[127] Second Investigation Report at pp 2159-2160; IMO Advice to the Economic Regulation Authority under clause 2.16.9B(d) of Market Rules dated 28 July 2014 at Tab 94 Vol 5 Page 3174-3222 Applicant's Discovery Bundle.
[128] First Investigation Report at p 2126. The BMO is now operated by AEMO.

Instruction. Clause 7.10 of the Market Rules requires Market Generators to comply with Dispatch Instructions unless it is not safe to do so or the Dispatch Instruction is inconsistent with the unit's technical parameters such as ramp-rates.[129]

126. System Management determined that, during the First Period, dispatching the various Muja AB units out-of-merit was required to maintain Power System Security and Power System Reliability for additional contingent events (such as planned or unplanned generation outages concurrent with peak loads).

127. System Management determined that, during the First Period, two Muja AB units (Muja G3 and Muja G4) would be dispatched out-of-merit continuously at 30 MW per unit.[130]

128. The Applicant understands that System Management may have had alternative options to maintain Power System Security and Power System Reliability at the relevant time. The Applicant notes, without accepting the accuracy of the conclusions, the options that may have been available as set out in the Merz Consulting Report.[131]

129. The Applicant considered that the network augmentation options detailed in the Merz Consulting Report were not a suitable short term solution available to System Management at that time.

130. One of the options that may have been available to Western Power as contained in the Merz Consulting Report included putting in place or drawing on a Network Control Services (**NCS**) contract to provide the necessary power system support.[132] This was the position of the Respondent. Another option would have been for System Management to have entered into a DSS contract with the Respondent to provide the requested services. In either of these cases, the prohibition in clause 7A.2.17 of the Market Rules would not have applied to the Respondent's conduct as the price for the relevant electricity would have been set in the contract and not through the Balancing Market and the Respondent being constrained-on.

131. On 24 February 2014, following receipt of System Management's Dispatch Instruction, the Respondent wrote to System Management noting that the last time it was required to respond to a constrained-on-out-of-merit instruction from System Management (in December 2013), the Respondent was paid the minimum Balancing Price and a constrained-on payment pursuant to the Market Rules but was unable to recoup its start-up costs and the revenue it received under the Market Rules did not cover its actual running costs. In the circumstances, the Respondent requested

[129] First Investigation Report at p 2126.
[130] Parties Statement of Agreed Facts dated 4 November 2016 at [43].
[131] Merz Consulting Report at [4.2] - [4.4].
[132] Merz Consulting Report, section 4.

System Management to enter into a NCS contract pursuant to which the Respondent would be paid for providing a network control service.[133]

132. The Respondent followed up System Management for a response to its request for a NCS contract on several occasions. On 21 March 2014, the Respondent wrote again to System Management in the following terms:

> *"Since 23 February 2014 Vinalco Energy has been providing a Dispatch Support Service in accordance with a direction from System Management under Market Rule (MR) 3.4.4 and reactive power under MR 7.6.12. We have been asked as part of this direction to generate at a level to ensure that we have two units at 30 MW when the system is in a high risk state (nominally between 10 pm and 8 am each day), we advise and confirm in accordance with the discussions that have taken place that the only way Vinalco can achieve this is to maintain our generation of two units at 30 MW for the whole day. Vinalco requires an Ancillary Service Contract to cover our costs from 23 February 2014 and to formalise the agreement.*
>
> *We understand that System Management require Vinalco to not be in the Balancing Market which is causing issues with the Market Rules and now require System Management to immediately direct Vinalco out of the Balancing Market."*

133. On 21 March 2014, System Management responded by email advising that:

> *"Western Power network has examined the request of Vinalco for a Network Control Services contract and they confirm that the intent of this type of contract is to deal with deferring investments rather than dealing with emergencies. Therefore NCS contract is not the right means to be employed in this situation. System Management and the IMO also considered Dispatch Support Services and I confirm that the intent of DSS does not allow us to administer such a contract in this case. It is our view that current situation is best dealt with by the Balancing Market which is currently used."*

134. On 24 March 2014, the Respondent replied to System Management asking it to reconsider its position with respect to a DSS or other ancillary services contract in the following terms:

> *"Vinalco notes that System Management's desire to require Vinalco to provide support through the Balancing Market is placing an enormous strain on Vinalco's trading team. The burden on Vinalco to ensure that its Balancing Submissions result in System Management's requirements being met through the Balancing Market mechanism are very significant and*

[133] Gower Witness Statement at [31].

costly, and Vinalco is concerned also about the welfare of its personnel and their ability to maintain these operations for the likely duration of the transformer failure issues. The significant overtime being required, from Vinalco's trading and management team helps to illustrate why an Ancillary Services Contract is a more appropriate mechanism. In addition, Vinalco notes that the current arrangements are placing it under a significant financial burden.

In the short term, this burden would be partly alleviated if you could clarify our understanding of the current arrangements. Vinalco is pricing all of its available energy from two units at the disposal of System Management at its short run marginal cost (SRMC). However, if and when there is the potential of Vinalco's units being called under the balancing market, we are increasing our price to avoid this eventuality. It is our understanding that should we be called to run under a balancing Dispatch Instruction, then at the end of the Trading Interval where we are no longer the unit or units to provide balancing energy or required to provide voltage support, we will receive a dispatch instruction to reduce the output of our units to zero MW. If we don't comply this could result in Vinalco breaching the Market Rules. As we have advised, in the majority of cases reducing output to zero will result in Vinalco not being able to have the requested unit(s) available at the time when System Management need our units for system support."

135. Notwithstanding these requests, Western Power did not enter into a NCS and System Management did not enter into a DSS with the Respondent and the response to the Transformer Failures was dealt with through the Balancing Market. The Respondent does not understand nor accept Western Power's position and remains of the view that a NCS contract was the most appropriate mechanism to deal with a situation where there is a prolonged period where it was required to be constrained-on. Had Western Power or System Management implemented either of these alternative solutions, the Respondent is of the view that it would not have been put into a situation where it was expected to bid in a way which meant it was unable to recover its costs.

136. In the Respondent's view, a NCS contract would have assisted Western Power to meet its obligations as the network operator and would have obviated the need for System Management to use the Balancing Market to return the SWIS to a normal operating state. Further, the Respondent considers that to the extent that Western Power elected not to enter into an NCS contract, then System Management should have entered into a DSS with the Respondent to provide the services it required consistent with System Management's obligation under clause 2.2.2(a) of the Market Rules[134] to procure adequate Ancillary Services. To that end, the Respondent notes an email from System Management to the Respondent dated 20 June 2014 (10 days before the end of the Second Period)

[134] See also System Management's obligations under clauses 3.9.9 and 3.11.1 of the Market Rules.

where System Management acknowledged that it was not certain that its dispatch of Muja AB had been the most cost effective outcome for the market and that it wanted to explore alternative options.[135]

G. IMPACT OF THE TRANSFORMER FAILURE ON THE RESPONDENT

137. The Respondent submits that it ran the units in high security mode to ensure that System Management's requirements were continuously met which had a substantial impact on costs as it meant that there were two sets of fans running, two boiler feed pumps, two mills and so on.[136]

138. The Respondent claims that, in order to fulfil System Management's requirements for reliable operation of the units, the Respondent was required to operate additional redundant systems to ensure that it satisfied System Management's requirements. These systems would not have otherwise been operated and significantly increased the Respondent's costs.[137]

139. The Respondent further submits that all electricity produced by the Respondent's units for the First Period and the Second Period was produced by units that were only operating because System Management constrained the units on to provide the Power System Security services it required. Further, the Respondent's net contract position was zero throughout each investigation period. Therefore, the remuneration received by the Respondent through the Balancing Market represents the amount of money the Respondent received for being constrained-on-out-of-merit.[138]

140. The Respondent adduced evidence in the way of the Merz Consulting Report that, based on the Merz Consulting estimates and the actual prices realised by the Respondent, the Respondent received, on average, significantly less money than it would have had it bid at Merz Consulting's estimate of a reasonable expectation of its SRMC.

141. The Respondent received $3.36m and $6.86m in balancing and constrained-on payments for the First Period and Second Period, respectively. This equates to an average realised balancing price (i.e. the price per MWh actually received by the Respondent after adjustments for TES) of $86.04/MWh and $175.24/MWh in the First Period and Second Period, respectively.[139]

142. Mr Gower submitted that, in reliance on a note by Merz Consulting, he estimated that, in order for the Respondent to have received its reasonable expectation of SRMC in the First Period, the Respondent would have needed to receive a realised price of $232/MWh plus extra for costs

[135] System Management Response to ERA Information Request 23 September at Tab 101, Vol 6 Page 3882 Applicant's Discovery Bundle.
[136] Gower Witness Statement at [35].
[137] Gower Witness Statement at [37].
[138] Gower Witness Statement at [86].
[139] Gower Witness Statement at [87].

associated with start-ups.[140] The Respondent received an average of $86.04/MWh in the First Period with no amount to compensate for start-up costs.[141]

143. Mr Gower submitted that, to have received its reasonable expectation of SRMC in the Second Investigation Period, the Respondent would have needed to receive a realised price of $176/MWh for Muja G1 and Muja G2 and a realised price of $229/MWh for Muja G3 and Muja G4, plus extra for costs associated with start-ups.[142] The Respondent received an average of $175.24MWh in the Second Period with no amount to compensate for start-up costs.[143]

144. Mr Gower submitted evidence that in the First Period the Respondent made a loss of approximately $744,000 and the Second Period a profit of $876,800.[144] Although not directly relevant to the First Period and Second Period, Mr Gower's statement notes that in April 2014 the Respondent made a loss of $1,055,904 and, prior to the First Period, the last time it was required to respond to a constrained-on-out-of-merit instruction from System Management (in December 2013) the Respondent was paid the minimum Balancing Price and a constrained-on payment pursuant to the Market Rules but was unable to recoup its start-up costs and the revenue it received under the Market Rules did not cover its actual running costs.[145]

145. The Applicant notes that Merz Consulting calculated SRMC differently from the Authority. The Applicant makes no comment as to the reasonableness of the Merz Consulting figures. It simply notes that it is recognised by all parties, including by the Authority, that had the Respondent priced at what the Authority determined was the appropriate SRMC of generating the relevant electricity then it would have made a loss generating the electricity.[146] As it is, the evidence of Mr Gower indicates that the Respondent made a loss in the First Period even pricing above the Authority's calculation of SRMC and (for the four pricing behaviours the subject of the Application) the average variable cost (**AVC**) of the relevant electricity. [147] For the Second Period, Mr Gower's evidence indicates that the Applicant made a surplus but the net effect is a negligible surplus across the periods.

146. Mr Gower's statement also refers to an email to System Management dated 24 March 2014 from the Respondent which illustrates the strain the use of the constrained-on instructions from System Management were having on the Respondent. It states in part:

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[140] Gower Witness Statement at [88].
[141] Gower Witness Statement at [87].
[142] Gower Witness Statement at [88].
[143] Gower Witness Statement at [87].
[144] Gower Witness Statement at [83].
[145] Gower Witness Statement at [31]
[146] First Investigation Report at p 2077.
[147] AVC is defined by VC/Q where VC is total variable cost. A Market Generator will lose money in supplying electricity unless its price received equals or exceeds AVC.

"Vinalco notes that System Management's desire to require Vinalco to provide support through the Balancing Market is placing an enormous strain on Vinalco's trading team. The burden on Vinalco to ensure that its Balancing Submissions result in System Management's requirements being met through the Balancing Market mechanism are very significant and costly, and Vinalco is concerned also about the welfare of its personnel and the their ability to maintain these operations for the likely duration of the transformer failure issues. The significant overtime being required, from Vinalco's trading and management team helps to illustrate why an Ancillary Services Contract is a more appropriate mechanism. In addition, Vinalco notes that the current arrangements are placing it under a significant financial burden."[148]

H. ELEMENTS OF CLAUSE 7A.2.17 OF THE MARKET RULES

147. Clause 7A.2.17 of the Market Rules states:

"Subject to clauses 7A.2.3, 7A.2.9(c) and 7A.3.5, a Market Participant must not, for any Trading Interval, offer prices in its Balancing Submission in excess of the Market Participant's reasonable expectation of the short run marginal cost of generating the relevant electricity by the Balancing Facility, when such behaviour relates to market power."

Meaning of 'reasonable expectation'

148. The phrase 'reasonable expectation' is not defined in the Market Rules and should be given its ordinary meaning within the context of clause 7A.2.17 of the Market Rules.

149. The Authority considered that an expectation is generally understood to mean forecasting or anticipating something to happen. For an expectation to be reasonable, the expectation must have a reasoned basis, which excludes guessing or speculation.[149]

150. The parties agree that the 'reasonable expectation' in clause 7A.2.17 of the Market Rules is the reasonable expectation of the Respondent at the time of the Balancing Submission. When determining the reasonable expectation of SRMC, the test is what a reasonable Market Generator would have expected with reference to the circumstances known to the Respondent at the time.

Meaning of 'short run marginal cost'

Authority's approach to short run marginal cost

[148] Gower Witness Statement at [46(a)(iii)].
[149] First Investigation Report at p 2073.

151. 'Short run marginal cost' is not defined in the Market Rules but the Authority observed that it is a concept that is well-established in economics and is typically defined as being the cost of one more unit of output. SRMC is a forward-looking concept and requires some level of forecasting and judgment.[150]

152. In making its assessment of SRMC for the purposes of the investigation, the Authority relied on the Authority's Technical Paper titled "Portfolio Short Run Marginal Cost of Electricity Supply in Half Hour Trading Intervals".[151] The definition of SRMC in that paper is consistent with that stated in the preceding paragraph.[152]

153. The economic definition of the Respondent's SRMC is the cost for it to change production by very small amounts from 30MW, or the first derivative of its total cost function.[153] The relevant practical range to examine the Respondent's economic definition SRMC is the difference between its minimum generation level and its actual output. For the First Period, the Authority determined that the Respondent's SRMC is given by the following formula:

$$SRMC = \frac{(C(30MW) - C(27.5MW))}{(30MW - 27.5MW)}$$

where (C) is the total cost of producing at the given level of output.

154. The Authority concluded that the economic definition of SRMC excludes Avoidable Fixed Costs (**AFCs**).[154] A Market Generator incurs AFCs if it produces any electricity, but these costs do not vary as production moves up or down.

155. The AFCs that the Authority excluded from the calculation of SRMC are:

(a) routine operations and maintenance;

(b) ancillary expenses;

(c) some shared services; and

(d) mill maintenance.[155]

[150] First Investigation Report at p 2075.
[151] Layman Witness Statement at [27].
[152] Economic Regulation Authority, Portfolio Short Run Marginal Cost of Electricity Supply in Half Hour Trading Intervals Technical Paper dated 11 January 2008 at Tab 87 Vol 5 at Page 2793 Applicant's Discovery Bundle.
[153] First Investigation Report at p 2075; Second Investigation Report at p 2177.
[154] First Investigation Report at p 2076; Second Investigation Report at p 2178.
[155] First Investigation Report at pp 2092-2093; Second Investigation Report at p 2194.

156. The following table sets out a summary of the Authority's assessment of the allowable input cost components of SRMC.[156]

Input cost component claimed by the Respondent	**Authority's assessment of whether the cost forms part of SRMC**
Routine Operations and Maintenance *Costs incurred in undertaking the preventative maintenance routines on the unit to cover both electrical and mechanical maintenance based on original equipment manufacturer recommendations.*	Not a valid SRMC input as routine maintenance can be considered primarily to be an avoidable fixed cost as the costs generally arise from running the plant and vary only a very small extent with generation level.
Ancillary expenses *Covers vehicles, plant, environmental licences, fuel handling, training, personal protection issues, travel, administration and the provision of operators.*	Not a valid SRMC input cost as apart from a small variable component, costs for fuel handling are not considered incremental costs and fixed in the short run.
Shared services *Covers items associated with the power station support infrastructure of contract services, air conditioning, buildings and grounds maintenance, emergency response, security, first aid, Western Power corporation connections, freight, interest during construction and fire systems and power station services of fly ash management, water treatment, chemicals and other common services.*	Dosing of cooling water (CW) chemical are considered to be a valid SRMC input cost as the dosing of CW chemicals does vary incrementally with generation as water supply requirements change with generation. Costs associated with bottom ash, treated water plant, supply water plant, fly ash and common services are very small and accounted for in the Incremental O&M costs.
Mill maintenance *An adjustment to the budget due to actual mill overhaul costs being significantly higher than budgeted costs.*	Not a valid SRMC input cost as mill maintenance can be considered primarily to be an avoidable fixed cost.
Coal	A valid SRMC input cost as it is a significant

[156] First Investigation Report at pp 2092-2099; Geoff Brown & Associates Ltd Reports Draft 3 dated 22 December 2014 and Draft 2 dated 31 March 2015 at Tab 41 Vol 1 Page 628-687 Applicant's Discovery Bundle.

Cost of coal or price of coal.	SRMC input component.
Fuel oil *Cost of fuel oil.*	Not a valid SRMC input cost as fuel oil is not required for stable generation.
Forced outages *A provision for Capacity refunds for forced outages payable if Reserve Capacity Obligations not met in a Trading Interval.*	Not a valid SRMC input cost as it can be classified as an avoidable fixed cost in any Trading Interval.
Major maintenance *Costs per quarter for major maintenance.*	Not a valid SRMC input cost.
Carbon Price *Cost of the carbon tax.*	A valid SRMC input cost.
Incremental O&M *Cost components that were relatively small in comparison to coal and carbon price costs.*	A valid SRMC input cost. This is an allowance to cover miscellaneous incremental operation and maintenance costs to ensure all valid variable input costs have been provided for.
Profit Margin (10%)	Not a valid SRMC input cost.
TES adjustment *The TES adjustment is the amount excluded from the constrained-on payment (ie the reduction in constrained-on payment for the unavoidable generation).*	A valid SRMC input cost. *Discussed further at paragraphs 157 and following below.*

157. As discussed above, a Market Generator constrained-on-out-of-merit receives additional compensation (additional to the Balancing Price). The additional compensation is the difference between the price offered by the Market Generator and the Balancing Price. However, the additional compensation is subject to the TES adjustment through clause 6.17.3 of the Market Rules. The TES adjustment excludes payment for the energy the Market Generator could not avoid generating if it was no longer constrained-on-out-of-merit but was ramping down from the beginning to the end of the Trading Interval.

158. The Authority concluded that if a Market Generator expects to be constrained-on-out-of-merit, then its reasonable expectation of its SRMC should include the TES adjustment. Otherwise, the Market Generator would not be able to recover its SRMC of the relevant electricity. This is because, if the

Market Generator offered a price equal to its SRMC (and that price was above the Balancing Price), the compensation received by the Market Generator would be less than the SRMC (the additional payment above the Balancing Price, that is the difference between the price offered and the Balancing Price, would be subject to the TES adjustment in respect of generation that could not have been avoided). Accordingly, the amount of the TES adjustment must be added back to ensure the Market Generator recovers its SRMC.[157]

Merz Consulting approach to short run marginal cost

159. Merz Consulting notes that there is no industry standard with respect to the costs to be included in the SRMC applicable to a mid-merit generator being requested to provide a specified number of units to be online in a high security operating state at minimum load in the manner requested by System Management of the Respondent during the First Period and the Second Period.

160. In these circumstances, when the Respondent was considering how to establish its "reasonable expectation of SRMC", Merz Consulting considered that the most reasonable approach would be to adopt the approach taken in the only other application of SRMC in the WEM Rules, the Energy Price Limits calculations report. This approach includes start costs and costs that are incurred during operation within the definition of SRMC. In support of this position, Merz Consulting noted that the operation of the generation in the Energy Price Limits Reports is similar to that required of the Respondent. That is, to start and operate for an undefined period.[158]

161. Merz Consulting disagreed with GBA's approach to SRMC, which calculated SRMC as the cost for the Respondent to change production by very small amounts from 30 MW, which it considered to be the first derivative of the Respondent's total cost function. GBA justified its exclusion of start costs on the basis that, for slow start coal fired plant, the decisions to start the plant (unit commitment decision) and the decision to increase its output above its minimum stable load (economic dispatch decision) need to be separated.[159]

162. However, Merz Consulting points out that, as the Respondent's units were not operational, and were not required to be operational, the initial constrained-on instruction by System Management was both the unit commitment decision and the economic dispatch decision. That is, the instruction was to increment the output of units from zero output (the output of the Respondent's plant preceding System Management's instructions) to the requested minimum output of 30 MW. Therefore, the relevant electricity is the 30MW increment from zero MW to 30 MW.

[157] First Investigation Report at pp 2078-2079.
[158] See Merz Consulting Report and Joint Experts Report filed on 21 April 2017, p 2.
[159] Joint Experts Report filed on 21 April 2017, pp 4-5.

163. Merz Consulting's view is that the start and run costs detailed in its report are actual incremental costs incurred by the Respondent. That is, without System Management's constrained-on instruction these costs would not be incurred. Accordingly, the marginal costs in this case must be calculated from the base output of zero.[160]

164. For the reasons set out in detail in Section 5 of its report, Merz Consulting expressed the view that the following cost categories should be included in the quantification of SRMC:

(a) Fuel;
(b) Fuel transport variable;
(c) Operational water and other variable input costs;
(d) Start-up fuel, water and other costs;
(e) Planned maintenance costs – machine operational based;
(f) Direct labour and operational materials – incremental effort;
(g) Market participation fees settled per MWh;
(h) Network access fees – excess demand charge;
(i) Network losses; and
(j) Carbon costs.[161]

165. Merz Consulting expressed the view that if an approach to calculating SRMC is adopted that excludes significant incremental costs resulting from constrained-on-out-of-merit instructions, System Management can (unknowingly) cause a Market Generator to become insolvent which is not consistent with the WEM Market Objectives.[162]

166. Merz Consulting also disagreed with the Authority and GBA with respect to the output base over which step change costs should be recovered. The Authority suggested such costs should be recovered over the output in the following half hour Trading Interval. However, Merz Consulting recommended spreading step change costs over an estimate of how many units of electrical energy MWh will be produced until the next step change (normally the unit being switched off or returning to a standard / minimal operating state or moving from a state of excess demand) as a reasonable approach to calculating SRMC for the purpose of clause 7A.2.17 of the Market Rules.[163]

167. Further, given:

(a) the lack of commercial commitment from System Management on the duration of operation of a dispatch instruction; and

[160] Merz Consulting Report at [6.3.2].
[161] Merz Consulting Report at Section 5.
[162] Joint Experts Report filed on 21 April 2017, p 3.
[163] Merz Consulting Report at [5.7].

(b) the status of the Muja AB units in the Reliability bathtub curve (first dispatch instructions having occurred during commissioning),

Merz Consulting concluded that the reasonable approach to forecasting SRMC would be to recover step change (start) costs over a relatively short period (3 days of continuous operation).[164]

168. Merz Consulting considered that the generation technology was not relevant to the consideration of a reasonable expectation of SRMC. It considered the relevant fact is the way in which costs are incurred and it was not reasonable to expect the Respondent to exclude costs that increase because of an increment in output (for example costs incurred per start and per hour of operation) from its reasonable expectation of SRMC solely on the basis that it is a coal fired power station.

Joint Experts Report

169. Pursuant to order 4 of the orders made by the Presiding Member of the Board on 22 December 2016, the experts retained by both the Applicant and the Respondent submitted the Joint Experts Report to the Board setting out the matters on which they are agreed, the matters about which they disagree and a short statement of the reasoning of the points of dispute.[165]

170. The classification of the following costs in relation to the Respondent's SRMC were agreed between the experts:

(a) operational water and other variable input costs;

(b) fuel costs; and

(c) carbon costs.[166]

171. The classification of the following costs in relation to the Respondent's SRMC were not agreed between the experts but have no material impact with respect to these proceedings:

(a) network access fees;

(b) direct labour and operational materials;

(c) emergency maintenance; and

(d) network losses. [167]

[164] Merz Consulting Report at [5.7].
[165] A copy of the Joint Experts Report was filed on 21 April 2017.
[166] See Joint Experts Report.
[167] See Joint Experts Report.

172. The difference between the experts was that the Respondent's expert argued that the following additional categories of costs should be included in the Respondent's SRMC: market participation fees, forced outage payments, planned maintenance costs, start-up fuel water and other costs and a factor for the treatment of risk factor.[168] The Applicant's expert disagreed.

173. The differences between the experts remain unresolved as the Respondent has agreed, for the purposes of settling the Application, that the Authority's calculation of SRMC is the appropriate measure.

Limitations on short run marginal cost in the circumstances

174. The Authority identified a number of practical issues with the use of SRMC as a measure for the offer price by the Respondent in these circumstances. The Authority noted that the adoption of the economic definition of SRMC in examining behaviour under Rule 7A.2.17 of the Market Rules could cause problems for Market Generators operating in the WEM.[169] These issues are exacerbated where a Market Generator is constrained-on-out-of-merit for anything other than a small number of Trading Intervals.

175. Units have a minimum generation level, below which production is not stable and it is impossible for a Market Generator to increase its production by one more unit from zero generation. The costs between a Market Generator going from zero to the minimum generation level must therefore be averaged.[170]

176. The Authority also noted that units typically become more efficient as production increases from minimum generation to maximum generation as their average heat rate, in terms of fuel used (in Gigajoules, GJ) to generate one MW of electricity, declines as production increases (although after a certain point the heat rate will increase). That is, a Market Generator's variable fuel costs decline as output rises meaning:[171]

(a) the Market Generator cannot offer prices exactly at SRMC of each production level because it must offer prices in a monotonically upwards manner (that is, each successive tranche bid into the market must be at a higher price to the last), otherwise notionally higher-output tranches will be dispatched first (being cheaper); and

(b) the Market Generator's SRMC will be less than the its AVC across much, possibly all, production levels. That is, strict SRMC pricing can lead to the Market Generator making a

[168] See Joint Experts Report.
[169] First Investigation Report at p 2077; Second Investigation Report at pp. 2179-2180.
[170] First Investigation Report at p 2077; Second Investigation Report at pp. 2179-2180.
[171] First Investigation Report at p 2077; Second Investigation Report at pp 2179-2180.

loss in the Balancing Market, which is not sustainable in the long term and affects whether optimal investment is achieved.

177. A Market Generator that is constrained-on out-of-merit is paid its offer price. If it was operating in the Balancing Market then the price payable would be set by the highest cost unit dispatched (which may or may not be the Market Generator). Where the Market Generator was not the highest cost unit then it would recover its offer price plus the difference between its offer price and the price of the highest cost unit. When constrained-on-out-of-merit, a Market Generator can only recover its offer price as adjusted under the Market Rules. [172]

178. The Authority states in its Investigation Reports that it:

> *"acknowledges that a generator offering prices at its reasonable expectation of its SRMC in the constrained-on-out-of-merit market would incur short-run losses in providing the relevant electricity. This is inconsistent with the Market Objectives. Furthermore, a generator in a competitive constrained-on-out-of-merit market, or any other competitive market, would not offer prices so as to incur a loss."*[173]

179. Finally, the parties note that the strict economic definition of SRMC would not be expected to include the TES. The Authority considered that the TES adjustment for the Respondent's constrained-on compensation from the market formed part of the Respondent's reasonable expectation of its SRMC and its AVC.[174] The reason for this was that if the TES adjustment is not included then it can lead to a loss for the Market Generator if its offer price does not contain an allowance for the maximum TES adjustment.[175] The Authority noted that the reasonable expectation of SRMC of a Market Generator operating normally in the Balancing Market does not include the TES adjustment, that is, it only applies when the Market Generator reasonably expects to be constrained-on-out-of-merit.[176]

Conclusion on 'short run marginal cost'

180. For the purposes of settling the Application only, the Respondent accepts the Authority's approach to calculating the SRMC of the electricity generated by the Respondent for both the First Period and the Second Period.

Meaning of 'relevant electricity'

[172] First Investigation Report at p 2077; Second Investigation Report at pp. 2179-2180.
[173] First Investigation Report at p 2080; Second Investigation Report at p 2182.
[174] See Appendix 2 in the First Investigation Report at pp 2138-2144 and Appendix 1 in the Second Investigation Report at pp 2227-2233.
[175] See Appendix 2 in the First Investigation Report at pp 2138-2144 and Appendix 1 in the Second Investigation Report at pp 2227-2233.
[176] First Investigation Report at p 2079; Second Investigation Report at p 2181.

181. The parties agree that the 'relevant electricity' is the electricity generated by the Respondent while constrained-on-out-of-merit.[177]

What is the relevant market?

182. The Market Rules do not define "market" or give any guidance as to how the market is to be identified. It is therefore appropriate to have regard to case law arising in an analogous context: the prohibition of misuse of market power in section 46 of the *Competition and Consumer Act 2010* (Cth) (**CCA**).[178] The relevant extracts from the key cases are set out in the Authority's Investigation Reports and are not repeated here.[179] As those extracts make clear, key to identifying a market is the presence of competition between buyers and sellers amongst whom there can be substitution.

183. Having regard to relevant case law and to the purpose and context of the application of clause 7A.2.17 of the Market Rules, the Authority concluded that the market within which the Respondent was operating during the First Period and the Second Period was the constrained-on-out-of-merit market for system and voltage support to the Great Southern region of the WEM.[180] In its Application, the Applicant noted that it may be that a wider market is preferred, being the Balancing Market.

184. In its Amended Statement of Facts and Contentions, the Respondent argued that the relevant market was the Wholesale Electricity Market.[181]

185. In the context of establishing whether the Respondent had market power, it is not strictly necessary to identify the market within which the Respondent was operating during the First Period and the Second Period.

186. This issue does not need to be resolved. The Respondent has conceded that the relevant market is the Balancing Market in the circumstances of this Application only and for the purposes of settling this Application.

What is the meaning of market power?

187. While there is no definition of market power in the Market Rules, it is a well-understood concept in competition law.

188. A generally accepted indicator of market power is where an entity can act in a market without constraint from competitors, suppliers, customers or new entry into the market. That is, market

[177] First Investigation Report at p 2080; Second Investigation Report at p 2182.
[178] and / or section 46 of the *Trade Practices Act 1974* (Cth) (as it then was).
[179] First Investigation Report at pp 2081-2083.
[180] First Investigation Report at pp 2103-2104.
[181] Respondent's Amended Statement of Facts and Contentions dated 10 November 2016.

power comes from the lack of effective competition. An entity with market power is able to act with a degree of freedom from competitors, potential competitors, suppliers and customers. It enables an entity to, among other things, make decisions about its prices with independence from the market or market forces.

189. In the context of section 46 of the CCA, the High Court has noted that the essence of power is the absence of constraint, and that market power in a supplier is the absence of constraint from the conduct of competitors or customers.[182] Market power enables an entity to, amongst other things, make decisions about pricing with independence from the market or market forces.

190. A Market Generator in the normal Balancing Market or the WEM is typically dispatched depending on how competitive its bid price is and it is (generally) subject to competition. In this case, the effect of constraining-on the Respondent meant that it received the price it offered for its relevant electricity (adjusted for the TES adjustment) regardless of how competitive that price was.

191. Unlike section 46 of the CCA, there is no requirement in clause 7A.2.17 of the Market Rules that there be a "substantial" degree of market power. Nor is there a requirement that the market power be sustained or persistent. The Applicant considers that, on a proper construction of the Market Rules, pricing behaviour in relation to any market power may be of concern under clause 7A.2.17 of the Market Rules, and pricing for a single Trading Interval can contravene the provision.[183] The Respondent considers that this timeframe is too short and a single Trading Interval is too short a period for there to be market power.

192. This issue does not need to be resolved. The Respondent has conceded that it had market power in the circumstances of this Application only and for the purposes of settling this Application.

Meaning of 'relates to' market power

193. The parties agree that the phrase 'relates to' is given its ordinary meaning and as such, is a connecting phrase of broad import. Clause 7A.2.17 does not require evidence of purpose or intent. Rather, notwithstanding the purpose of the conduct, if there is a causal relationship between the conduct and market power then this limb of the prohibition will be satisfied.

I. DID THE RESPONDENT CONTRAVENE CLAUSE 7A.2.17 DURING THE FIRST PERIOD?

[182] *Boral Besser Masonry Ltd v ACCC* (2003) 215 CLR 374.
[183] First Investigation Report at pp 2083-2086.

194. The Respondent admits, for the purposes of settling the Application, that it contravened clause 7A.2.17 of the Market Rules for each Trading Interval alleged in the Application in respect of the First Period.

The Respondent offered prices above its SRMC during the First Period

195. During the First Period, the Respondent offered prices ranging between $97.67/MWh to $305.00/MWh.

196. The Authority concluded that four prices, being $120/MWh, $150/MWh, $304.95/MWh and $305/MWh in certain Trading Intervals were above the Respondent's reasonable expectation of SRMC.[184]

197. During the First Period, the Respondent offered those prices in Balancing Submissions in circumstances that related to market power for:

(a) 118 Trading Intervals for Muja G4;

(b) 85 Trading Intervals for Muja G3; and

(c) 15 Trading Intervals for Muja G1.[185]

198. The Respondent admitted to the Authority that each of the four prices referred to above were not based on SRMC; the Respondent submitted that they were 'an iterative price' which was used to prevent the Respondent being in breach of the Market Rules and they were higher than its SRMC of generating the relevant electricity.[186]

The Respondent's conduct related to market power during the First Period

199. The Authority concluded that the decision by System Management to constrain-on the Respondent provided it with market power by the operation of the WEM regulatory framework. [187]

200. Once the decision was made by System Management for the Respondent to be constrained-on-out-of-merit, the Respondent faced no competitive threat whilst constrained-on in terms of being undercut by other Market Generators on the basis of price. Whatever price the Respondent offered in its Balancing Submissions for the generation of electricity would be accepted and its units would be dispatched.

[184] First Investigation Report at pp 2121-2122.
[185] First Investigation Report at pp 2123.
[186] First Investigation Report at p 2064; Vinalco Energy Response to ERA Information Request 25 August 2014 at Tab 96 Vol 5 at Page 3229 Applicant's Discovery Bundle.
[187] First Investigation Report at p 2104.

201. This did not mean that every action related to market power. The Authority noted that pricing above SRMC does not necessarily relate to market power given that in these circumstances to price at SRMC may cause the Market Generator to make a loss. However, pricing may relate to market power where the price offered (and received) is above the price a Market Generator would have offered and received if it did not have market power. That is, if it had been operating in a competitive market.

202. The Authority considered the counterfactual of the prices the Respondent would have offered if it did not have market power by examining the Respondent's conduct in a competitive market and applying that to the constrained-on-out-of-merit market. Considering the counterfactual with and without market power isolates the impact of the Respondent's pricing behaviour on the market.

203. If the Respondent would have offered the same prices under both circumstances, with and without market power, then the conduct is unlikely to have related to market power. If the Respondent's conduct differs with and without market power, and a profit maximising firm would only offer higher prices when it has market power, then it is likely that the conduct related to market power.

204. In this case, the Authority considered that the Respondent's conduct related to market power in that the prices it offered and subsequently received for the relevant electricity generated during the First Period and the Second Period were above the prices it would have offered (and received) if it did not have market power.

205. Prior to being constrained-on-out-of-merit, the Respondent provided energy **[confidential]** under a Bilateral Contract where, during the off-peak periods, the Respondent was providing **[confidential]** per Trading Interval.

206. The Authority considered that the prices under the **[confidential]** Contract that the Respondent obtained are an indication of the prices that the Respondent would have achieved in a competitive market during the First Period and the Second Period. The Authority compared the Respondent's pricing behaviour with its TES adjusted price under the **[confidential]** Contract and its TES adjusted AVC on an individual Trading Interval basis, consistent with its interpretation of clause 7A.2.17 of the Market Rules.

207. It considered if the prices were above the higher of the TES adjusted price under the **[confidential]** Contract and the TES adjusted AVC then the price was above the theoretical competitive price and related to market power. Of the 14 pricing behaviours referred to the Authority, the Authority considered that four prices; $120, $150, $304.95 and $305 offered in certain Trading Intervals were related to market power.

J. DID THE RESPONDENT CONTRAVENE CLAUSE 7A.2.17 DURING THE SECOND PERIOD?

208. The Respondent admits, for the purpose of resolving the Application, that it contravened clause 7A.2.17 of the Market Rules for each Trading Interval alleged in the Application in respect of the Second Period.

The Respondent offered prices above its SRMC during the Second Period

209. During the Second Period:

(a) the Respondent offered two prices of $305.00/MWh (14 June 2014 to 16 June 2014) and $243.62/MWh (18 June 2014 to 28 June 2014);

(b) the Authority concluded that each price was above the Respondent's reasonable expectation of SRMC; and

(c) the Respondent offered those prices in Balancing Submissions for:

(i) 657 Trading Intervals for Muja G1;

(ii) 852 Trading Intervals for Muja G2;

(iii) 165 Trading Intervals for Muja G3; and

(iv) 937 Trading Intervals for Muja G4.

210. The Respondent admits, for the purpose of settling the Application, that all of the prices offered in the Second Period were above its reasonable expectation of SRMC as calculated by the Authority.

The Respondent's conduct related to market power during the Second Period

211. The parties repeat paragraphs 199 to 206 above. The Authority considered that the prices offered in the relevant Trading Intervals were related to market power.

JOINT SUBMISSIONS ON LIABILITY AND PENALTY

A. INTRODUCTION

212. The Board may receive and accept civil penalty submissions agreed between the Applicant and the Respondent: *Commonwealth of Australia v Director, Fair Work Building Industry Inspectorate & Ors and Construction, Forestry, Mining and Energy Union & Anor v Director, Fair Work Building Industry Inspectorate & Anor* [2015] HCA 46 (**CFMEU decision**).

213. Even if there is no express provision in the statute allowing a regulator to make submissions as to the form and quantum of the relief sought, the making of submissions by a regulator as to the terms and quantum of a civil penalty does not lead to, and is not likely to lead to, erroneous views about the importance of the regulator's opinion in the setting of appropriate penalties.[188]

214. The regulator, by virtue of its statutory function, is in a position to be able to make informed submissions as to the appropriate level of penalty necessary to achieve compliance in the relevant industry.[189]

215. The Board is not bound by the penalty figure suggested by the parties.[190]

216. Further, the Board will need to have regard to all relevant matters, including the nature and extent of the contravention, the nature and extent of any loss or damage suffered as a result of the contravention, the circumstances in which the contravention took place and whether the Respondent has previously been found by the Board in proceedings under the *Electricity Industry Act* 2004 (WA) to have engaged in any similar conduct and the consequences of making the order.[191]

217. However, subject to the Board being sufficiently persuaded of the accuracy of the parties' agreement as to the facts and consequences, and that the penalty proposed is an appropriate remedy in the circumstances revealed, it is consistent with principle, and for reasons of public interest (including predictability of outcome for regulators and wrongdoers and a more expedient and cost efficient resolution of enforcement proceedings), highly desirable for the Board to accept the parties' proposal and impose the proposed penalty.[192]

218. In the present circumstances, the Applicant and the Respondent have agreed the relevant facts and contentions, and the recommended civil penalty to be imposed under the Regulations for the

[188] CFMEU decision at [64].
[189] CFMEU decision, per French CJ, Kiefel, Bell, Nettle and Gordon JJ at [57].
[190] CFMEU decision, at [48].
[191] Regulations, regulation 33(4).
[192] CFMEU decision, at [58].

contravention of the Market Rules.[193] However, in determining whether the proposed penalty is appropriate, the Board must have regard to all relevant matters, including:

(a) the nature and extent of the contravention;

(b) the nature and extent of any loss or damage suffered as a result of the contravention;

(c) the circumstances in which the contravention took place;

(d) whether the Respondent has previously been found by the Board in proceedings under the *Electricity Industry Act* 2004 (WA) to have engaged in any similar conduct; and

(e) the consequences of making the order.[194]

B. NATURE AND EXTENT OF THE CONTRAVENTION

219. For the purpose of resolving the Application, the Respondent has admitted contravening the Market Rules in all of the Trading Intervals the subject of the Application.

220. Taking into account all of the relevant circumstances, the Applicant and the Respondent submit that the conduct in the First Period constitutes one contravention and the conduct in the Second Period constitutes a second contravention.

221. It has been recognised that, for the determination of a penalty, multiple contraventions of an Act may be treated as a single course of conduct where there is a clear connection between the legal and factual elements of the various contraventions.[195] The general objective of the "course of conduct" principle is to ensure that the sentence or penalty fairly reflects the substance of the offending conduct, rather than a purely mathematical total for each separate offence which may be able to be technically identified.[196]

222. In the current circumstances, it is clear that there is a link between the offering of prices in Balancing Submissions across each period and there is not a natural 'break' in the conduct. In the First Period, the moving of prices was in response to the Respondent's belief that it had to price out of merit in the BMO. It was not a deliberate pricing strategy where each pricing behaviour can be seen as distinct conduct but rather was part of the single strategy of the Respondent to comply with what it thought was required by System Management in order to ensure that Power System Security and Power System Reliability was maintained.

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[193] See regulation 33(1)(a) of the Regulations. The maximum civil penalty amount prescribed for a contravention of clause 7A.2.17 of the Market Rules is $50,000 for a first contravention, and $100,000 for subsequent contraventions.
[194] Regulations, regulation 33(4).
[195] For example see *Australian Competition & Consumer Commission v Telstra Corporation Limited* (2010) 188 FCR 238; [2010] FCA 790 per Middleton J at [231]-[235].
[196] *Australian Communications and Media Authority v Getaway Escapes Pty Ltd* [2016] FCA 795.

223. In the Second Period, the Respondent provided evidence that it attempted to price at what it considered was the SRMC, save for a period between 13 June 2014 and 16 June 2014, because, due to the late changes in the operating profile requested by System Management on 9 June 2014 (see paragraph 121 above), it did not yet have an estimate of its SRMC to base its Balancing Submission on.[197] While, for that period, this conduct shows a lack of care by the Respondent, the Applicant does not consider it can be properly considered a break in the conduct such that it could be considered a separate contravention. As with the First Period, there was no separate strategy of pricing or implementation of pricing behaviours by different persons. Rather the Respondent priced at its calculation of its SRMC amending the price across one period in order to make sure it was correct.

224. Such a characterisation of the conduct would be consistent with other cases. For example, in *ACCC v AirAsia Berhad Company* [2012] FCA 1413, the Court considered that 'drip pricing' of AirAsia flights which contravened the *Australian Consumer Law* in respect of 13 separate routes arose from a single error made by a senior flight scheduler employed by AirAsia who failed adequately to instruct the junior flight schedulers responsible for uploading the relevant price. As a result, the Court considered the conduct was one course of conduct.

225. In *ACCC v Reckitt Benckiser (Australia) Pty Ltd* (2016) 340 ALR 25, the Federal Court of Australia Full Court relevantly noted at [59] that the primary judge made the important observations of the penalty judgment that "*within the course of conduct concerning the [representations], the contraventions were not committed in identical circumstances*". That is, one course of conduct does not require identical circumstances.

226. The number of Trading Intervals should not sway the Board to consideration of a larger number of contraventions. For example, in *ACCC v EDirect Pty Ltd* [2012] FCA 976, Reeves J found (at 34 [74]) that some 438 contraventions of the relevant sections of *the Competition and Consumer Act 2010*, were "*part and parcel of the one course of conduct*" which occurred "*at or about the same time and during the same five months period*" notwithstanding the fact that the impugned representations had been made over a period of five months to 219 telemarketing customers.

C. THE EXTENT OF LOSS OR DAMAGE SUFFERED AS A RESULT OF THE CONTRAVENTION

227. As set out at paragraph 137 and following, the prolonged period of being constrained-on-out-of-merit caused significant financial and technical pressure on the Respondent. On 24 July 2014, the Respondent submitted evidence to the Applicant of its under and over recovery of costs. That

[197] Gower Witness Statement at [68]-[70].

demonstrated that in the First Period the Respondent made a loss of $744,000 and in the Second Period a gain of $876,800.

228. Although not directly relevant to the First Period or the Second Period, Mr Gower's witness statement notes that in April 2014 the Respondent made a loss of $1,055,904 and, prior to the First Period, the last time it was required to respond to an instruction from System Management (in December 2013), the Respondent was paid the minimum Balancing Price and a constrained-on payment pursuant to the Market Rules but was unable to recoup its start-up costs and the revenue it received under the Market Rules did not cover its actual running costs.[198]

229. Given how closely the date of the letter (24 July 2014) was to the conduct, the submission must necessarily be an estimate. In fact, as the Respondent noted, its net contract position was zero. Accordingly, the revenue received by the Respondent was the only money the Respondent received for being constrained-on.[199] The Respondent's estimate of costs however was likely, at the time it was made (24 days after the Second Period) to be understated and only contain the direct or immediate costs of producing the relevant electricity. For calculating any loss or gain, then all costs properly incurred by the Respondent should be considered. For example, where System Management required the Respondent to have a unit on "warm start" to avoid the 72 hour ramp rate, the cost of having a unit on but not generating was not recoverable.

230. The Respondent provided evidence from Merz Consulting as to the amount of revenue it could have received if it had priced at Merz Consulting's calculation of its reasonable expectation of SRMC, meaning the revenue it should have received in order to cover its costs of generating the relevant electricity. On that basis, the Respondent submits that it received $2.76 million less than it should have received.[200] While the Applicant expresses no comment on the reasonableness of the figures used by Merz Consulting, it agrees with the general principle the Respondent is seeking to make; namely, that its costs were highly likely to have been understated by Mr Gower in the 24 July 2014 letter and, on a proper construction of the matter, the Respondent has in all probability made a loss in the First Period and the Second Period as a result of being constrained-on.

231. It is also important to note that the Respondent's conduct was successful in ensuring that Power System Security and Power System Reliability was maintained.

D. CIRCUMSTANCES IN WHICH THE CONTRAVENTION TOOK PLACE

232. The circumstances in which the contravention took place are set out in detail in the Statement of Agreed Facts and Issues above. It is important for the purposes of these penalty submissions to

[198] Gower Witness Statement at [31].
[199] Gower Witness Statement at [86].
[200] Gower Witness Statement at [88(d)].

stress that unusual nature of the circumstances both in terms of the duration of the constrained-on period and also the unique nature of the Respondent's operating profile and history prior to being constrained-on. These are discussed further below.

(a) The parties refer to the submissions on the operating profile of the Respondent above at paragraphs 62 to 69 and note that System Management's requirements of the Respondent were fundamentally different to the Respondent's standard operating manner increasing the Respondent's costs substantially;[201]

(b) Market Generators are rarely constrained-on-out-of-merit for as long as the Respondent was during the First Period and the Second Period.[202] The Authority stated in its Investigation Reports that forcing Market Generators to accept a loss on their short-run costs, which occurs under the Authority's strict economic definition of SRMC, is inconsistent with investment that minimises costs in the long run.[203] The parties refer to the submissions on the limitations of SRMC in the circumstances above at paragraphs 174 to 179;

(c) the fact the Respondent had no requisite need to calculate its SRMC prior to the First Period and Second Period and had limited information available to it and experience in determining the SRMC of the relevant electricity;[204] and

(d) the Respondent undertook to price its Balancing Submissions to meet System Management's requirements and in accordance with its understanding of System Management's instructions in 'good faith'.[205] The parties refer to submissions on the Respondent's understanding of System Management's instructions for the First Period above at paragraphs 93 to 101 and for the Second Period above at 120 to 121.

233. Importantly, the parties agree that there is no evidence that the Respondent deliberately misused its market power in its bidding behaviour during the First Period and Second Period. While clause 7A.2.17 of the Market Rules does not specifically require intent, where there is evidence of a deliberate intent the Board should impose a higher penalty. In this case, there is no evidence that the Respondent deliberately misused market power in its bidding behaviour during the First Period and Second Period. This supports a nominal penalty.

234. The parties agree that the pricing mechanism provided for in clause 7A.2.17 of the Market Rules is not an appropriate mechanism for constrained-on-out-of-merit Dispatch Instructions to a mid-merit coal plant over a significant number of Trading Intervals.

[201] Gower Witness Statement at [35].
[202] First Investigation Report at p 2078; Second Investigation Report at p 2180.
[203] First Investigation Report at p 2078; Second Investigation Report at p 2180.
[204] Gower Witness Statement at [52] to [57].
[205] Gower Witness Statement at [36] to [45].

235. The effect of strictly applying a pricing standard of SRMC in clause 7A.2.17 of the Market Rules to the Respondent in the circumstances of this case would result in an uncommercial and unviable effect on the Respondent, namely, requiring it to recover less than its running costs of operating the units. Such an outcome would clearly not result in economically efficient outcomes for the market and would be inconsistent with the WEM Market Objectives. This was recognised by the Authority in its Investigation Reports.

236. The parties note that the Authority attempted to resolve these issues by its construction of 'relates to market power'. The Authority noted that a Market Generator would price above its SRMC at the higher of the price available in the competitive market and AVC. In most circumstances, the price available in the competitive market and AVC would be equal. The effect of this interpretation is that a Market Generator would not be found to contravene the Market Rules if it priced above its SRMC but below AVC even if it had market power. The Applicant has no issue with this approach and the Respondent has agreed with this approach for the purpose of settlement. However, there is nothing in the Market Rules to suggest that this approach was contemplated by the drafters of clause 7A.2.17 of the Market Rules.

237. Further, even allowing for the Authority's analysis, that a Market Generator would price at its AVC in a competitive market, clause 7A.2.17 is still problematic. It requires the Market Generator to strictly price at its AVC in circumstances where it has market power. As the Authority recognised, under its test, market power may exist for a single Trading Interval yet the calculation of AVC, which includes start-up costs, relies on a forecast of how long the Market Generator will run (so those start-up costs can be appropriately recovered over multiple Trading Intervals). While the use of AVC reduces the uncommercial effect of pricing at SRMC, the issues remain as to a Market Generator's ability to accurately price where it does not have clear visibility as to:

(a) the number of Trading Intervals it is required to run;

(b) the quantity of energy required to be dispatched; and

(c) the proper timeframe to recover those costs over.

238. There were differences between the Authority and Merz Consulting in respect of the calculation of SRMC. It is not inappropriate to suggest that there would be differences in the calculation of AVC, which is not a concept that is referred to in the Market Rules. In other words, it is highly likely that reasonable minds would differ over the exact calculation of AVC.

239. The parties also note that clause 7A.2.17 of the Market Rules itself is not without controversy. As part of the Western Australian Electricity Market Review, the Brattle Group was appointed to conduct a review and produce a report on market power mitigation mechanisms in the energy and

ancillary services market. The Report entitled *Market Power Mechanisms for the Wholesale Electricity Market in Western Australia* (**Brattle Group Report**) is publicly available.

240. The Brattle Group Report concludes that, with one dominant gentailer in the WEM, the market is structurally not competitive and noted the competitive ideal is for energy offers to reflect a supplier's SRMC and highlighted the inadequacies of clause 7A.2.17 of the Market Rules. In addition to SRMC not being adequately defined, the Brattle Group Report suggests that the primary shortcomings are that neither of the phrases "reasonable expectation of short run marginal cost" nor "when such behaviour relates to market power" are defined, noting that this has caused considerable confusion among Market Participants. Specifically, it states:

> *"Market participants are unsure which costs they are allowed to include when constructing their offers. This lack of clarity increases market participants' risk and potentially raises the market monitor's enforcement costs."*

Previous contraventions

241. The Respondent has not previously been before the Board in any proceedings under the Market Rules or the *Electricity Industry Act 2004* (WA) and has not previously been found to have engaged in any similar conduct.

E. CONSEQUENCES OF MAKING THE ORDER

242. Schedule 1 to the Regulations lists clause 7A.2.17 of the Market Rules as a civil penalty provision and prescribes that the maximum penalty is $50,000 for the first contravention and $100,000 for subsequent contraventions.

243. Clause 2.16.9H of the Market Rules provides that where the Applicant receives a request under clause 2.16.9G of the Market Rules, the Applicant must refer the matter to the Board requesting that a civil penalty be imposed on the relevant Market Participant. No discretion is conferred on the Applicant in that regard.

244. The parties are seeking a nominal penalty for each contravention of the Market Rules. That is, a nominal penalty for the contravention in the First Period and a nominal penalty for the contravention in the Second Period.

245. In analogous statutes, such as the CCA, the principal object of a pecuniary penalty is deterrence, both specific and general.[206]

[206] *ACCC v Dimmeys Stores* [2011] FCA 372 (8 April 2011) at [32]; confirmed in *Singtel Optus* at [62]. This was referring to penalties under the *Competition and Consumer Act 2010* but the general principle is the same.

246. In *Trade Practices Commission v CSR Ltd*,[207] French J (as he then was) said that:

> *"The principal, and I think probably the only, object of the penalties imposed by [section 76 of the then Trade Practices Act 1974] is to attempt to put a price on contravention that is sufficiently high to deter repetition by the contravener and by others who might be tempted to contravene the Act."*

247. His Honour went on to say that the penalty imposed should be sufficiently high and substantial enough that the parties realise the seriousness of their conduct and are not inclined to repeat it.

248. While a penalty should be sufficiently high to act as a deterrent, it must not be so high as to be oppressive.[208] In considering what may constitute oppression, a penalty that is no greater than is necessary to achieve the object of general deterrence will not be oppressive.[209]

249. The pecuniary penalty should also not be so low as to constitute in the eyes of the contravener (and others) an acceptable cost of doing business.[210]

250. This was reinforced by the High Court in *ACCC v TPG Internet Pty Ltd*,[211] in which French CJ, Crennan, Bell and Keane JJ observed:

> *"General and specific deterrence must play a primary role in assessing the appropriate penalty in cases of calculated contravention of legislation where commercial profit is the driver of the contravening conduct."*

251. It is clear from these authorities that the purpose of penalties is deterrence, further, the level of penalty should be no higher than is necessary to achieve the object of general deterrence.

252. The circumstances of this case are unique. This is clear from the Statement of Agreed Facts and Issues above and also in these Joint Submissions on Penalty under the heading 'Circumstances in which the contravention took place'. The parties repeat these submissions.

253. The Respondent admits that it should have taken greater care, particularly in those Trading Intervals where it priced at the Price Cap. On that basis, the parties consider that a nominal penalty is warranted. However, the unique nature of these circumstances means there is no value to be gained by levying anything more than a nominal penalty on the Respondent and, in fact, a higher penalty would be oppressive in these situations.

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[207] (1991) ATPR 41-076, 52 152.
[208] *NW Frozen Foods* (1996) 71 FCR 285, 293; *SingTel Optus* [2011] FCA 761 (7 July 2011) at [75].
[209] *Australian Competition and Consumer Commission v Leahy Petroleum (No 2)* [2005] FCA 254 (17 March 2005) at [10]; *SingTel Optus* [2011] FCA 761 (7 July 2011) at [75].
[210] *Singtel Optus Pty Ltd v Australian Competition and Consumer Commission* [2012] FCAFC 20 (7 March 2012) at [62]; *Australian Competition and Consumer Commission v P & N Pty Ltd* [2014] FCA 6 (17 January 2014) at [53].
[211] (2013) 88 ALJR 176 at [65].

254. Since the contravening conduct there have been other instances where a Market Participant has been constrained-on-out-of-merit. The Applicant and the Respondent are not aware of any other investigations or prosecutions for contraventions of clause 7A.2.17 of the Market Rules. In other words, the Respondent's conduct did not give rise to any other conduct by a third party which may be deterred by a penalty in this case.

255. Finally, the Respondent is due to be shut down no later than September 2018.[212] There is no specific deterrence value for the Respondent or any other Market Generator to be gained by anything more than a nominal penalty.

256. In the circumstances of this matter, a nominal penalty won't encourage further breaches of clause 7A.2.17 of the Market Rules by the Respondent. As set out at paragraph 137 and following, the prolonged period of being constrained-on-out-of-merit caused significant financial and technical pressure on the Respondent. There was no 'upside' for the Respondent in engaging in the conduct and, as noted under the heading 'The extent of loss or damage suffered as a result of the contravention' based on the Respondent's evidence it has submitted, the Respondent has in all probability lost money. A financial penalty above a nominal penalty would compound these issues.

257. The Respondent has co-operated throughout the Authority's investigation. Synergy, the Respondent's parent company, also provided full co-operation to the Authority. The Respondent has also offered to settle this matter. As the Court noted in *NW Frozen Foods* at [291]:

> *"There is an important public policy involved. When corporations acknowledge contraventions, very lengthy and complex litigation is frequently avoided, freeing the courts to deal with other matters, and investigating officers of the [Regulator] to turn to other areas of the economy that await their attention."*

258. The early settlement of this matter has spared the time and expense of a hearing. It will also allow the Government to wind up the Applicant (as this was the last of the Applicant's functions) sparing the market further on-going costs of the Applicant. These factors weigh heavily towards a nominal penalty.

259. There is a further issue which is relevant. Regulation 37 provides that a civil penalty received by the market operator must be:

[212] https://www.mediastatements.wa.gov.au/Pages/McGowan/2017/05/Synergy-to-reduce-electricity-generation-cap-by-2018.aspx

(a) if the Market Rules provide for the distribution of civil penalties received by the market operator in respect of the contravention amongst participants of a particular class – distributed in accordance with the Market Rules; or

(b) if the Market Rules do not provide for such a distribution – credited to the consolidated account.

260. Clause 7A.2.19 of the Market Rules provides that a civil penalty for a contravention of clause 7A.2.17 of the Market Rules must be distributed amongst all Market Participants in proportion to their Market Fees. This would appear to include the Respondent. This has three effects:

(a) first, for the purposes of restitution, the penalty would need to be distributed to Market Customers (a sub-set of Market Participants) not Market Participants generally, as any additional costs incurred by the Respondent's conduct (if any) were borne by Market Customers;

(b) second, the payment will be made to a market configuration which is different to that which existed at the time of the contravention. That is, to existing Market Participants and not Market Participants at the time of the contravention; and

(c) third, the Respondent and its parent company Synergy will receive **[confidential]** of the penalty.[213]

In other words, to the extent that the imposition of a penalty may be seen as restitutionary by the operation of clause 7A.2.19 of the Market Rules, the application of the clause will not achieve this and it is not an appropriate restitution mechanism. In any event, for the reasons set out in paragraphs 245 and following, the parties submit that restitution is not an appropriate reason to levy a penalty.

261. Taking into account all of the above circumstances, the parties recommend that the Board should treat the Respondent's contraventions as a single course of conduct and impose only a nominal civil penalty in respect of the Respondent's contraventions during the First Period and the Second Period.

262. In *NW Frozen Foods*, the Full Federal Court said that it will be assisted by the 'views of the specialist body set up to protect the public interest' on whether 'a proposed penalty will be sufficient to deter' particular conduct; such views are 'likely to be persuasive'.[214]

263. The Applicant had, until 1 July 2016 the responsibility for monitoring and enforcing compliance with the Market Rules. The Applicant's role was akin to protecting the market and the public interest. It has experience in considering and dealing with Market Rules contraventions. Although

[213] See footnote 24.
[214] *NW Frozen Foods* (1996) 71 FCR 285, 298.

the Applicant has now ceased these functions, the Applicant has the characteristics of the specialist body as contemplated by the Full Federal Court in *NW Frozen Foods*. The Applicant commenced the process of this matter and continues to have carriage of it until the Application is resolved. It has carefully considered the matter and considers for all of the reasons above, a nominal penalty is appropriate in these circumstances. The parties submit that these joint submissions on penalty should be persuasive to the Board.

264. The Applicant has also sought an order that the Respondent pay the costs of the Applicant. The Applicant does not now seek an order for costs. Under the Market Rules, the costs of the Applicant will be distributed amongst all Market Participants in proportion to their Market Fees. The Respondent and its parent company, Synergy, constitute **[confidential]** of the market and therefore will be liable to pay that percentage of the Applicant's costs.[215]

DATED the day of June 2017

Minter Ellison
Solicitors for the Applicant

Holman Fenwick Willan
Solicitors for the Respondent

[215] See footnote 24.