

IN THE WESTERN AUSTRALIAN ELECTRICITY REVIEW BOARD

No. 1 of 2019

B E T W E E N

ECONOMIC REGULATION AUTHORITY

Applicant

and

**ELECTRICITY GENERATION AND RETAIL CORPORATION
TRADING AS SYNERGY**

Respondent

RESPONDENT'S CLOSING SUBMISSIONS

A. INTRODUCTION

1. This proceeding is a claim by the applicant (**ERA**) that the respondent (**Synergy**) contravened cl 7A.2.17 of the Wholesale Electricity Market Rules (**Market Rules**).¹
2. Clause 7A.2.17 states:

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 its short run marginal cost of generating the relevant electricity by the Balancing Facility, when such behaviour relates to market power.
3. The ERA claims that, in each of 11,012 Trading Intervals (**Relevant Trading Intervals**) in the period 16 April 2016 to 10 July 2017 (**Relevant Period**):
 - (a) Synergy's estimates of its gas costs and its start-up costs were excessive and/or unreasonable; and
 - (b) this caused Synergy's Balancing Submission offers in each of the Relevant Trading Intervals to exceed Synergy's reasonable expectation of its short run marginal cost (**SRMC**) of generating the relevant electricity.

¹ Defined terms in the Market Rules have the same meaning as in these submissions, unless otherwise stated.

4. Further, the ERA claims that Synergy had market power in each of the Relevant Trading Intervals, and that its offers in its Balancing Submissions for those intervals related to its market power.
5. Synergy denies each of the ERA's allegations. For the reasons developed below, it has not established the claims for the Relevant Trading Intervals. Its claim should be rejected.

B. RELEVANT FACTS

Witnesses

6. The lay witnesses were Mr Yanqiu Lou and Ms Carole Clare. Mr Lou's evidence included a statement dated 6 May 2021 (**Lou statement**). Ms Clare's evidence comprised a statement dated 24 March 2021 (**Clare statement**).
7. The economic expert witnesses were Mr Jeffrey Balchin, Mr Bruce Layman and Professor Christopher Knittel. Mr Balchin's evidence included a report dated 14 December 2020 (**Balchin report**) and a responsive report dated 23 April 2021 (**Balchin reply report**). Mr Layman's evidence included a report dated 14 December 2020 (**Layman report**) and a responsive report dated 26 April 2021 (**Layman reply report**). Professor Knittel's evidence included a report dated 26 March 2021 (**Knittel report**).
8. The economic expert witnesses also prepared a joint report dated 4 May 2021 (**Economic experts' report**).
9. The engineering expert witnesses were Mr Thomas Reid and Mr Adam Aspinall. Mr Reid's evidence included a report dated 13 December 2020 (**Reid report**) and a report dated 27 April 2021 (**Reid reply report**). Mr Aspinall's evidence included a report dated 26 March 2021 (**Aspinall report**).
10. The engineering expert witnesses also prepared a joint report dated 4 May 2021 (**Engineering experts' report**).

The WEM

11. The sale and purchase of electricity in the South West Interconnected System (**SWIS**)² occurs in the Wholesale Electricity Market (**WEM**). The WEM is created and regulated by the Market Rules, which are made pursuant to regulations made under the *Electricity Industry Act 2004* (WA).
12. The objectives of the market are as follows:³
 - (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 generators and retailers in the SWIS, including by facilitating efficient entry of new competitors;
 - (c) to avoid discrimination in that market 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.
13. To achieve these objectives, the WEM includes a Short-Term Energy Market (**STEM**), a Balancing Market and a Reserve Capacity Mechanism.⁴ Alongside the WEM are longer-term “bilateral contract” markets.⁵

² ERA’s SFIC at [3] and [111].

³ Rule 1.2.1. of the Market Rules and s 122(2) of the *Electricity Industry Act 2004* (WA).

⁴ The Market Rules also require, *inter alia*, procurement of, and payment for the provision of, ancillary services, which are designed to maintain the security and reliability of electrical supply in the short term: see Knittel report at [37]; Balchin report at [64]-[67].

⁵ Knittel report at [37].

Bilateral contracts

14. Wholesale suppliers and buyers of electricity in the WEM typically enter into contracts for the supply of electricity known as bilateral contracts (or power purchase agreements).⁶
15. Bilateral contracts are formed on a commercial basis, meaning that AEMO does not supervise their formation and imposes no restrictions on their conditions.⁷ However, WEM market participants must notify AEMO daily of the net amount of electricity to be treated as having been agreed to be supplied by the market participant pursuant to bilateral contracts.⁸
16. During the Relevant Period, the vast majority of electricity traded in the WEM (over 90%) was traded through bilateral contracts.⁹ Market participants used the STEM and Balancing Market for unexpected changes in supply and demand.¹⁰

The STEM

17. The STEM is an auction process that takes place a day before each Trading Day, which allows Market Participants to modify positions they have adopted through bilateral contracts.¹¹
18. By 9 am on the day before a Trading Day, AEMO reports to Market Participants, in respect of each Trading Interval in that Trading Day:
 - (a) the total demand to be supplied under bilateral contracts;
 - (b) the total forecasted demand; and
 - (c) information about the amount of electricity generation reserve capacity available.¹²

⁶ See Knittel report at [39] and Figure 2.

⁷ Knittel report at [38].

⁸ Knittel report at [38].

⁹ Knittel report at [39] and Figure 2.

¹⁰ Knittel report at [39].

¹¹ Knittel report at [40], [41].

¹² Knittel report at [41].

19. Market Participants then submit offers to buy or sell electricity (in price-quantity pairs¹³) relative to each participant's bilateral position for each Trading Interval of the Trading Day.¹⁴
20. Based on those offers, AEMO engages in a process by which it matches supply with demand,¹⁵ which leaves Market Participants with positions that are equal to their net contract positions, as modified by net purchases or net sales in the STEM.¹⁶

The Balancing Market

21. The Balancing Market is where electricity is dispatched, and any differences between Market Participants' net positions (resulting from bilateral contracts and the STEM) and the volume of electricity they dispatch or consume are settled.¹⁷
22. By 6 pm on the day before each Trading Day, generators must submit Balancing Submissions to AEMO, which identify the prices at which they offer to generate and dispatch different volumes of electricity.¹⁸
23. In Balancing Submissions, generators are required to offer all of their generating capacity, for each Trading Interval, over the Balancing Horizon.¹⁹ The Balancing Horizon is a constantly expanding and contracting period that spans at least the remainder of the current Trading Day. At 6pm each day, it expands to span the remainder of the current Trading Day and all of the next Trading Day.²⁰
24. In respect of each Trading Interval, Balancing Submissions must include between one and 35 price-quantity pairs.²¹ Where generators offer more than one price-quantity

¹³ Offers that specify the amount of electricity the participant offers to buy or sell and at what price.

¹⁴ Knittel report at [41].

¹⁵ Knittel report at [42] ("AEMO forms a market aggregate offer curve and a market aggregate bid curve, then calculates the market clearing STEM quantity and STEM price based on the crossing point of the offer and bid curves") and footnote 75.

¹⁶ Knittel report at [42].

¹⁷ Knittel report at [43]; Balchin report at [57].

¹⁸ Knittel report at [45]; Balchin report at [57].

¹⁹ See Rule 7A.2.1(b) of the Market Rules; together with Chapter 11 of the Market Rules in the definitions of "Balancing Submission" at sub-paragraph (b), "Balancing Price-Quantity Pair", at sub-paragraph (c) and "Sent Out Capacity" at sub-paragraph (b).

²⁰ See Chapter 11 definition of "Balancing Horizon".

²¹ Transcript, day 5, p 131, lines 5 – 7; Combined Transcript filed 2 June 2021 (**Combined Transcript**), p 513, lines 11-13.

pair for any Trading Interval, the offer prices must increase monotonically.²² That is, each offer must be higher than the preceding offer.

25. Prices that are offered in Balancing Submissions must not exceed a reasonable expectation of the generator's SRMC of generating the relevant electricity, where doing so relates to market power.²³
26. Prices that are offered in Balancing Submissions must also remain below specified caps, being the Maximum STEM Price and the Alternative Maximum STEM Price (there is also a Minimum STEM Price).²⁴
27. During the Relevant Period, Synergy was required to make offers on a portfolio basis; that is, it was required to offer the capacity of all of its relevant generation facilities (**Balancing Portfolio**) in a single supply curve.²⁵
28. Generators other than Synergy (independent power producers, or **IPPs**) are permitted to revise their Balancing Submissions (as often as they wish) until two hours before the start of a Trading Interval. Synergy is able to revise its Balancing Submissions for the Balancing Portfolio between 4 and 9.5 hours before the start of a Trading Interval.²⁶
29. Following gate closure for IPPs (i.e., the time when offers can no longer be revised), AEMO collects all of the Balancing Submissions and creates an aggregated Balancing Merit Order (**BMO**) for the relevant Trading Interval, by stacking all of the quantities offered in Balancing Submissions, from the lowest priced offer to the most expensive offer.
30. During the Trading Interval, AEMO then issues dispatch instructions to generation facilities, with the lowest cost facilities required to meet demand at that time (as determined by the BMO) dispatched.²⁷

²² See, e.g., Balchin report at [86].

²³ Clause 7A.2.17 of the Market Rules.

²⁴ See section 6.20 of the Market Rules.

²⁵ Knittel report at [47].

²⁶ Knittel report at [48].

²⁷ Knittel report at [50].

31. The market clearing price (the Balancing Price) is determined by the point at which electricity dispatched intersects with the BMO, plus 1 MW.²⁸ Accordingly, it is determined by the offer of the last generator required to be scheduled to meet demand.
32. Differences between Market Participants' net contract position (resulting from bilateral contracts and the STEM) and the volume of electricity they dispatch or acquire are settled at the Balancing Price.²⁹ For example:
- (a) if a generator dispatches more (or a customer consumes less) electricity than it had agreed (through bilateral contracts and the STEM) to sell (or buy), it will receive the Balancing Price for that electricity; and
 - (b) if a market customer consumes more (or a generator dispatches less) electricity than it agreed (through bilateral contracts and the STEM) to consume (or dispatch), it pays the Balancing Price for that electricity.
33. The STEM and the Balancing Markets are settled by AEMO.³⁰ Settlement is net of any bilateral contract positions already notified to AEMO.³¹ That is, AEMO does not charge Market Participants for energy they have agreed to buy or sell through bilateral contracts.

Reserve Capacity Mechanism

34. The Reserve Capacity Mechanism involves the making of payments to capacity providers (i.e., owners of generation facilities or demand response providers) for making their facilities available to generate electricity (or reduce consumption) for supply in the WEM.³²
35. Two years before each Capacity Year (which starts on 1 October), AEMO specifies a Reserve Capacity Requirement based on the minimum amount of generation capacity it considers is required in the SWIS.³³ It then allocates to capacity providers Certified

²⁸ Knittel report at [50]; clause 7A.3.10 of the Market Rules.

²⁹ Knittel report at [10] and footnote 6.

³⁰ Balchin report at [61].

³¹ Balchin report at [61].

³² Balchin report at [46].

³³ Knittel report at [52].

Reserve Capacity and Capacity Credits to meet that capacity requirement, based on their facilities' technical capabilities.³⁴

36. Generators must apply to AEMO for certification for the amount of Reserve Capacity they can provide.³⁵ To satisfy AEMO of their capability to provide Reserve Capacity, generators must, *inter alia*, have firm fuel procurement and transportation contracts sufficient to run their generators for 14 hours consecutively, for the period from 8am to 10pm on Business Days from 1 October to 31 July of the Capacity Year.³⁶ During the Relevant Period, Synergy relied principally upon the Gorgon Contracts to satisfy this requirement.
37. If insufficient capacity is procured through allocation of Capacity Credits, a Reserve Capacity Auction may be held.³⁷ In any such auction, there is a price cap, being the Benchmark Reserve Capacity Price, which is based on certain costs of developing and operating a 160 MW distillate-oil-fuelled open cycle gas turbine generation facility.³⁸
38. If no capacity auction is held, the Reserve Capacity Price paid to all facilities that supply capacity is 85% of the Benchmark Reserve Capacity Price, adjusted for system capacity excess.³⁹

Synergy

39. Synergy is wholly owned by the State of Western Australia. Prior to 2006 it formed part of the state-owned power company, Western Power Corporation (**WPC**).⁴⁰ In 2006, WPC was split into four separate entities, including an electricity generation business, Electricity Generation Corporation (**EGC**), and an electricity retail business, Electricity Retail Corporation (**ERC**).⁴¹ In 2014, EGC and ERC were re-merged, creating Synergy.⁴²

³⁴ Knittel report at [53].

³⁵ Knittel report at [54]; Balchin report at [48].

³⁶ Knittel report at [55].

³⁷ Knittel report at [56]. No auction has been held to date: Knittel report at [58].

³⁸ Knittel report at [57].

³⁹ As to how the adjustment is calculated, see Balchin report at [51] and Knittel report at footnote 105.

⁴⁰ Knittel report at [28].

⁴¹ Knittel report at [28].

⁴² Knittel report at [30].

40. As noted above, Synergy's business comprises the generation of electricity and the retail supply of electricity and natural gas. It is a Market Participant in the WEM, both as:
- (a) a Market Generator, i.e., a person who owns, controls or operates a generation system which has a rated capacity that equals or exceeds 10 MW and is electrically connected to a transmission system or distribution system which forms part of the SWIS, or is electrically connected to that system: and
 - (b) a Market Customer, i.e., a person who sells electricity to Contestable Customers in respect of facilities electrically connected to a transmission system or distribution system which forms part of the SWIS, or is electrically connected to that system.
41. Since 2006, Synergy has faced increasing competition in the generation of electricity. Its share of electricity generated in the SWIS declined from 80% in 2007 to 35% in 2020.⁴³ During the Relevant Period, Synergy generated 49% of electricity in the SWIS.⁴⁴
42. Synergy is the sole supplier of electricity to consumers that acquire less than 50 MWh of electricity per year (i.e., most residential and small business consumers).⁴⁵ In 2016, supply to those consumers comprised 33.8% of the total electricity generated in the SWIS.⁴⁶ The prices Synergy charges those consumers are set by the Western Australian State Government.⁴⁷
43. During the Relevant Period, Synergy's relevant generation facilities comprised two coal fired generators,⁴⁸ three wind farms⁴⁹ and 18 gas fired generators comprised of five separate generation units,⁵⁰ which were a mix of base load, mid-merit and peaking plants.⁵¹

⁴³ Knittel report at [31].

⁴⁴ Knittel report at [31].

⁴⁵ Knittel report at [32].

⁴⁶ Knittel report at [32].

⁴⁷ Knittel report at [32].

⁴⁸ The Collie and Muja plants, comprising 5 generating units.

⁴⁹ The Albany and Grasmere Wind Farm, the Kalbarri Wind Farm and the Bremer Bay wind-diesel facility.

⁵⁰ Cockburn (one Combined Cycle Gas Turbine), Pinjar (9 Open Cycle Gas Turbines (OCGTs)), Kwinana (3 OCGTs), Mungarra (3 OCGTs) and Kalgoorlie (2 OCGTs).

⁵¹ See Lou statement at [6]-[9].

Synergy's Balancing Submissions

44. As noted above, during the Relevant Period, Synergy was required to make offers on a portfolio basis; that is, it was required to offer the capacity of all of its generation facilities in a single supply curve.
45. Synergy formulated its Balancing Submission offers using software known as PowrSym. Broadly speaking, PowrSym identified, for different levels of demand, the lowest cost dispatch of Synergy's portfolio.⁵²
46. How that occurred is complex. Broadly speaking, Synergy first forecasted demand over 168 Trading Intervals (a 3.5 day period),⁵³ then calculated deviations in demand above and below its forecast.⁵⁴ This gave it 41 separate demand scenarios, for each of the 168 Trading Intervals.⁵⁵
47. For each of those demand scenarios, Synergy then identified the lowest cost combination of its portfolio to dispatch,⁵⁶ taking into account its generators' respective characteristics, including their minimum stable generation rates, heat rates, ramp rates and start-up costs.⁵⁷
48. This process led to identification of one or more generators that would be forecast to be dispatched for different levels of production, for each relevant Trading Interval.⁵⁸
49. Of those generators, the generator with the highest Average Operating Cost (AOC) was identified as the "marginal" generator.⁵⁹ Synergy treated the AOC of the marginal generator as its SRMC for generating the relevant electricity.⁶⁰
50. The following is an example of the AOC cost curve of the marginal generator for a Trading Interval (being Chart 7 in the Layman primary report).

⁵² Layman report at [40], [40a].

⁵³ Layman report at [29]; Knittel at footnote 82.

⁵⁴ Layman report at [32].

⁵⁵ Layman report at [32].

⁵⁶ Layman report at [34].

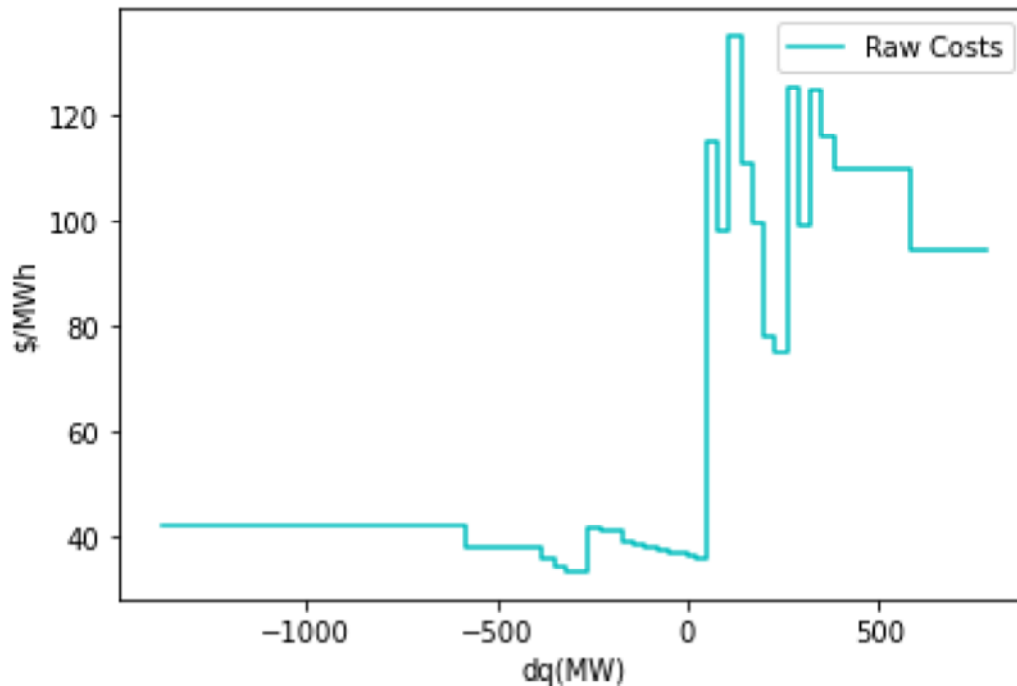
⁵⁷ Layman report at [35]–[36].

⁵⁸ Layman report at [43].

⁵⁹ Layman report at [43].

⁶⁰ Layman report at [43], [46], [49].

Chart 7: Stylised Synergy Raw Costs for 15 January 2017 (\$/MWh), Synergy Input Cost Assumptions, 17:00 Trading Interval, 15 January 2017 (\$/MWh)⁵¹

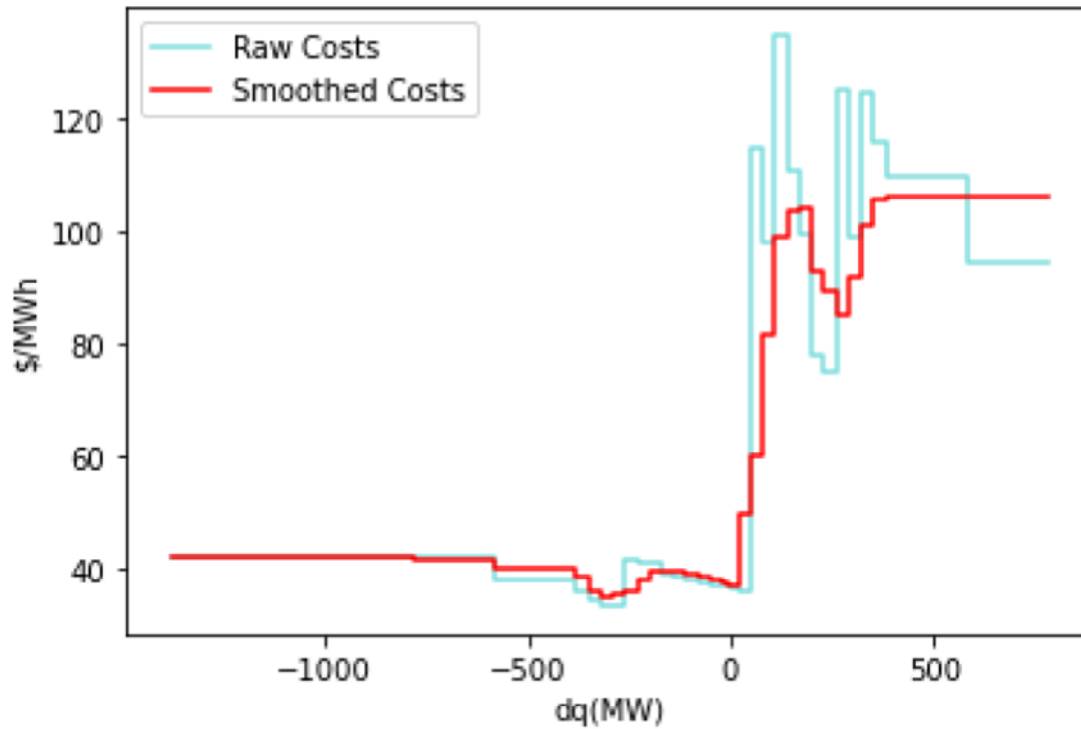


51. As can be seen, there are significant spikes (or jumps) in this curve. They occur around the time that a generator is forecast to start.⁶¹ To avoid sudden price hikes, Synergy next undertook a process of “smoothing” to reduce those spikes, which involved averaging its costs both across time (i.e., across different Trading Intervals) and MW deviations.⁶²
52. The following chart is an example of the effect of this smoothing (being Chart 8 in the Layman primary report).

⁶¹ Transcript, day 4, p 119, lines 15-22; Combined Transcript, p 360, line 21 to p 361, line 3.

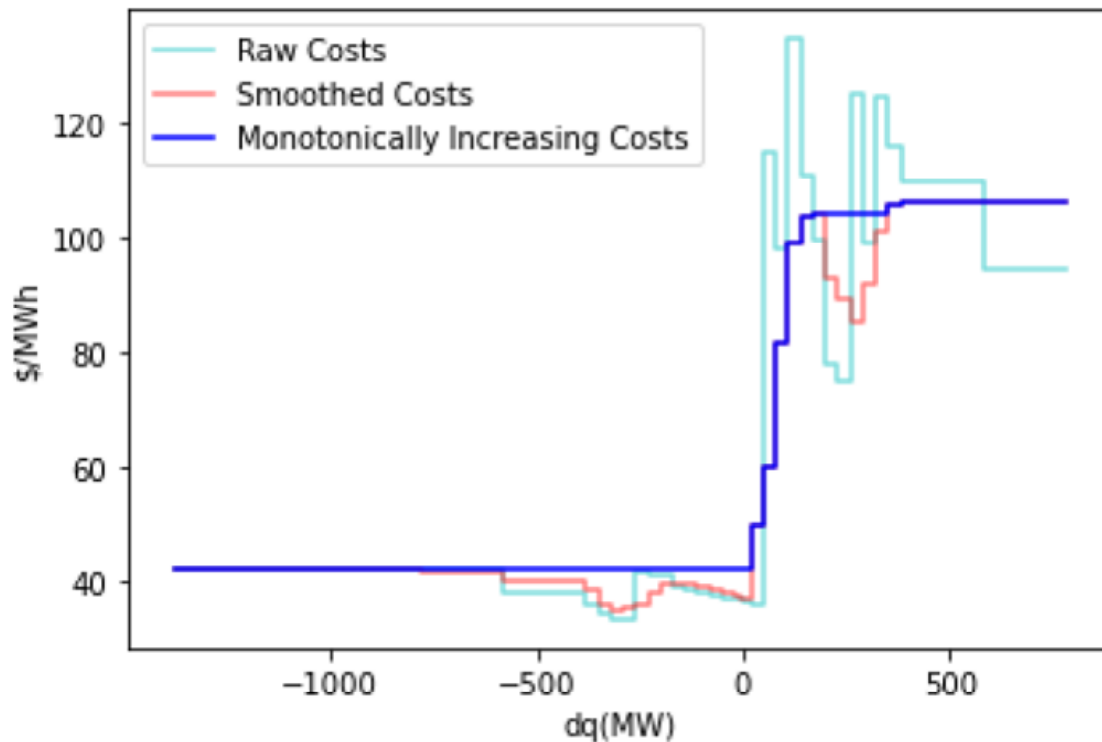
⁶² Layman report at [61].

Chart 8: Stylised Synergy Smoothed Costs (\$/MWh), Synergy Input Cost Assumptions, 17:00 Trading Interval, 15 January 2017 (\$/MWh)⁵²



53. Finally, Synergy undertook a further process to ensure that its offer prices increased monotonically. The following chart is an example of the effect of this process (being Chart 9 in the Layman primary report).

Chart 9: Stylised Synergy Monotonically Increasing Offer Curve⁵⁴ for (\$/MWh), Synergy Input Cost Assumptions, 17:00 Trading Interval, 15 January 2017 (\$/MWh)⁵⁵



54. These smoothed offer curves were submitted as Synergy's offers in the Balancing Market.

Start-up costs

55. Gas fired generators generate electricity by compressing air, mixing it with fuel and igniting the mixture to create a hot gas, which then moves through turbine blades, causing them to spin.⁶³ The spinning blades cause a drive shaft to rotate, which turns a large generator magnet, and thereby creates an electrical current in surrounding coils of copper wire.⁶⁴
56. Each time gas-fired generators start, some components go from being at a standstill at room temperature to rotating at extremely high speed and temperature in seconds. This causes damage to (and, over time, failure of) the components,⁶⁵ and requires generators

⁶³ Lou statement at [13].

⁶⁴ Lou statement at [13].

⁶⁵ Lou statement at [14]-[16].

to incur a range of operations and maintenance (**O&M**) costs, including for inspections and parts replacement.⁶⁶

Gas markets

57. Long-term natural gas supply is an important input for reliable electricity generation in Western Australia. There has been a distinct focus by the West Australian government on ensuring sufficient, long-term gas supply for the region.⁶⁷
58. The vast majority of gas supplied in Western Australia is procured under long-term TOP agreements,⁶⁸ which are confidential.
59. There are also “spot markets” in which gas can be bought and sold. There is also little publicly available information concerning those markets. However, volumes traded on them appear to be very small and trades are usually for short periods of 1 – 3 months.⁶⁹ In the year leading up to the signing of the Gorgon Contracts, an average of 4.9 TJ per day was transacted on the gasTrading Spot market.⁷⁰ In contrast, as noted below, the Gorgon Contracts were for 125 TJ per day of firm supply. Current natural gas consumption in Western Australia is approximately 1,000 TJ per day on average.⁷¹
60. Gas acquired in spot markets is also not “firm” (as is required to meet the reserve capacity certification requirements); rather, spot gas may be either interruptible or “as available” (firm but only confirmed a day ahead).⁷²

Synergy’s gas supply contracts

61. Until 29 November 2016, Synergy acquired most of its gas for its generation facilities from the North West Shelf Gas Project. Since 6 December 2016 it has acquired most of its gas for generation pursuant to two contracts with producers from the Gorgon Gas Project (**Gorgon Contracts**). The Gorgon Contracts have terms of 20 years and take-

⁶⁶ Lou statement at [9].

⁶⁷ See Knittel report at [124], [125]; Economic experts’ report at p 18 (Prof Knittel’s response to [28]).

⁶⁸ Knittel report at [71], [106]. When the Gorgon Contracts were executed, the Energy Minister was supportive of them and described them as having “strategic importance”: Knittel report at [125].

⁶⁹ Knittel report at [71].

⁷⁰ Clare statement at [54].

⁷¹ Economic experts’ report at p 19 (Prof Knittel’s response to [31]).

⁷² Knittel report at [73].

or-pay (**TOP**) obligations that require Synergy to pay for an annual average of [REDACTED] of gas per day regardless of whether or not it actually consumes the gas.

C. ISSUES

62. It is convenient to address the effect of inputs on Synergy's Balancing Submission offers first. We then address, in turn, the issues relating to gas costs; start-up costs; and market power.

D. EFFECT OF INPUTS ON OFFER PRICES

63. As submitted above,⁷³ Synergy offered up to 35 prices in each Balancing Submission in each of the relevant 11,012 Trading Intervals.

64. The ERA alleges:

- (a) as its principal case, that Synergy's changed estimates of its gas and/or start-up cost estimates caused all of those offers to be above Synergy's reasonable expectation of its SRMC of generating the relevant electricity;⁷⁴ and
- (b) as its alternative case, that Synergy offered "*at least some prices*" in each of the relevant Trading Intervals that were above its reasonable expectation of its SRMC.⁷⁵

65. We address both of these allegations in turn. For the reasons we develop below, the evidence does not establish either of them. The ERA has not led evidence that enables the Board to find that any specific offer, in any of Synergy's relevant Balancing Submissions, was above Synergy's reasonable expectation of its SRMC.

The ERA's primary case

66. The ERA contends that all of Synergy's Balancing Submission offers during the Relevant Period were above its reasonable expectation of its SRMC, because:

⁷³ See [24] above.

⁷⁴ ERA's SFIC at [25] and [111]. See also the ERA's outline of opening submissions at [48].

⁷⁵ ERA's opening submissions at [50].

- (a) Synergy used the AOC of the marginal generator as a proxy for the SRMC of its Balancing Portfolio,⁷⁶ and
- (b) increasing Synergy's gas and/or start-up cost estimates caused the AOC of the marginal generator to increase.⁷⁷

67. Therefore, the ERA submits, increasing Synergy's gas and/or start-up cost estimates necessarily caused all of Synergy's relevant offers to be above its reasonable expectation of its SRMC.⁷⁸
68. There are two principal difficulties with that submission.
69. First: the offer prices in Synergy's Balancing Submission offers are not the AOC of the marginal generator. As submitted above,⁷⁹ once Synergy has identified the AOC of the marginal generator, it averages (or "smooths") those costs across time and MW deviations,⁸⁰ then modifies them again to ensure that they can be presented as monotonically increasing offers.⁸¹ This process was depicted in the charts at paragraphs 50 to 53 above.
70. By reason of this process, significant portions of the offer curve in Synergy's Balancing Submissions can be well below the AOC of the marginal generator (usually, around the time a generator start occurs⁸²). Accordingly, significant portions of the offer curve in Synergy's Balancing Submissions can also be well below Synergy's estimate of its SRMC.
71. And so, even if the ERA had shown that inflated estimates of Synergy's gas and start-up costs would have caused Synergy's entire offer curve in each of its relevant Balancing Submissions to be inflated (which it has not⁸³), the entire curve may not be above Synergy's reasonable expectation of its SRMC. The process of smoothing, and (separately and distinctly) the requirement to ensure that offers increase

⁷⁶ ERA's outline of opening submissions at [12].

⁷⁷ ERA's outline of opening submissions at [47], [48].

⁷⁸ ERA's outline of opening submissions at [48].

⁷⁹ See [51] above.

⁸⁰ Layman report at [61].

⁸¹ Layman report at [64].

⁸² See [51] above.

⁸³ See [78] to [114] below.

monotonically, may have ensured that parts of the curve remained (well) below Synergy's reasonable expectation of its SRMC.

72. Second: in any event, the ERA's submission is predicated on a proposition that increasing gas and start-up cost inputs necessarily causes the prices in all of Synergy's Balancing Submission offers to increase.
73. There is no evidence to support that assumption.
74. The evidence the ERA led with respect to the relationship between Synergy's gas and start-up cost assumptions and its offer prices was the evidence of Mr Layman. Mr Layman did not opine that increasing Synergy's estimate of its AOC for its generators would increase the price of all of Synergy's offers. To the contrary, he expressly disavowed holding any such opinion. He said that he "*did not claim that using lower gas input prices ... could lead to lower prices offered in all portions of Synergy's offer curves*".⁸⁴
75. That is unsurprising. Mr Layman's model predicted that when Synergy's gas and start-up cost assumptions increased by a specific amount, its offer prices increased over only "*some portion*" of each curve.⁸⁵ By "*some portion*", he meant as little as 10MW.⁸⁶ It follows that for the remainder (and vast majority) of each offer curve, his model predicted that Synergy's offers may have remained the same, or decreased.
76. Indeed, Professor Knittel sought to replicate the outcomes of Mr Layman's model and found that, in some Trading Intervals, when a higher input price was used in Mr Layman's model, some of the offer prices generated by the model did, in fact, decrease due to, *inter alia*, discontinuities in Synergy's start-up decisions.⁸⁷ Mr Layman did not dispute the accuracy of that analysis.
77. Lastly, in its oral opening submissions the ERA conceded that increasing Synergy's gas and start-up cost estimates may not cause all of Synergy's relevant offers to

⁸⁴ Economic experts' report, p 41, response to [33].

⁸⁵ Layman report [88]; Economic experts' report at p 41 (response to [33]); Transcript, day 5, p 87, line 22 – p 88, line 1; Combined Transcript, p 470, lines 2-6; Transcript, day 5, p 90, line 22 – p 92, line 5; Combined Transcript, p 473, lines 3-11; Transcript, day 5, p 130, lines 1-12; Combined Transcript, p 512, lines 7-18.

⁸⁶ Layman report at [88].

⁸⁷ Economic experts' report, p 41, response to [33].

increase.⁸⁸ It acknowledged that increasing Synergy's estimate of its AOC for its generators may, for some part of Synergy's offer curve, cause Synergy's offers to decrease.⁸⁹

The ERA's alternative case

78. As noted above, the ERA differently alleges, in the alternative, that Synergy offered "*at least some prices*" in each of the relevant Trading Intervals that were above its reasonable expectation of its SRMC.⁹⁰
79. That different and alternative case is based on, and is dependent upon, the model that Mr Layman constructed for the purpose of identifying a relationship between Synergy's gas and/or start-up cost estimates (on the one hand) and the prices it offered in its Balancing Submissions (on the other hand).⁹¹
80. Mr Layman ran his model using (only):
- (a) the gas and start-up cost estimates that Synergy used in the formulation of its relevant Balancing Offers (**Synergy estimates**);
 - (b) the gas and start-up cost estimates that Synergy used before the start of the Relevant Period, i.e., 16 April 2016 (which Mr Layman styled **the ERA assumptions**).⁹² There is no allegation, and there is no evidentiary basis, that those gas and start-up costs were, in fact, the costs that Synergy must have and/or ought to have estimated (in each or indeed in any of the relevant 11,012 trading intervals during the Relevant Period).
81. In running his model, Mr Layman kept all other input assumptions constant.⁹³

⁸⁸ Transcript, day 1, p 38, line 17 to p 39, line 22; Combined Transcript, p 38, line 17 to p 39, line 22; ERA's SFIC at [22] and [111]. See also the ERA's outline of opening submissions at [50].

⁸⁹ Transcript, day 1, p 38, line 17 to p 39, line 22; Combined Transcript, p 38, line 17 to p 39, line 22.

⁹⁰ ERA's opening submissions at [50]; see Layman report [88]; Economic experts' report at p 41 (response to [33]); Transcript, day 5, p 87, line 22 – p 88, line 1; Combined Transcript, p 470, lines 2-6; Transcript, day 5, p 90, line 22 to p 92, line 5; Combined Transcript, p 473, lines 3-11; Transcript, day 5, p 130, lines 1-12; Combined Transcript, p 512 lines 7-18.

⁹¹ Transcript, day 5, p 118, line 23 – p 119, line 1; Combined Transcript, p 501, lines 3-6.

⁹² Layman report at [75].

⁹³ See, e.g., Layman report at [85], [92], [93], [108], [115], [116] and footnote 59; Layman reply report at [16].

82. Mr Layman’s evidence was that “*some portion*” (i.e., at least 10 MW) of the offer curve his model generated when using the Synergy estimates was higher than the curve it generated when using the ERA assumptions.⁹⁴
83. Mr Layman’s modelling does not assist the ERA.
84. Mr Layman’s modelling does not show that some portion of the offer curve in each of Synergy’s relevantly impugned 11,012 Balancing Submissions was above Synergy’s reasonable expectation of its SRMC. It fails to do so for at least five reasons, each of which is sufficient to cause the ERA’s alternative case to fail.

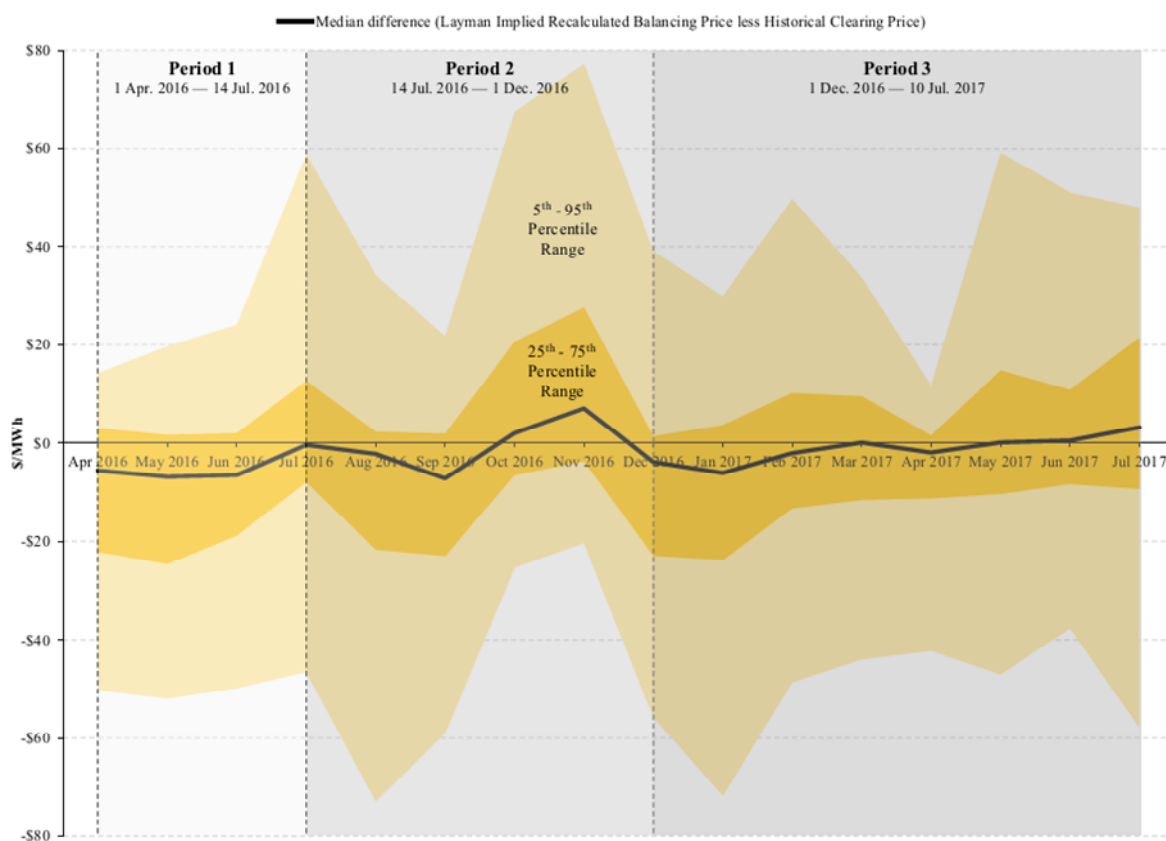
Mr Layman’s model does not replicate PowrSym

85. First: Mr Layman’s model does not replicate Synergy’s PowrSym model. It does not even come close to doing so. When both models are run with the same gas and start-up cost assumptions, they produce significantly different offer prices. That is not in controversy.⁹⁵
86. The extent of the differences in the offer prices the two models generate (when run with the same assumptions) is clear from the following chart (being Figure 23 in the Knittel report).

⁹⁴ Layman report [88]; Economic experts’ report at p 41 (response to [33]); Transcript, day 5, p 87, line 22 – p 88, line 1; Combined Transcript, p 470, lines 2-6; Transcript, day 5, p 90, line 22 to p 92, line 5; Combined Transcript, p 473, lines 3-11; Transcript, day 5, p 130, lines 1-12; Combined Transcript, p 512, lines 7-18.

⁹⁵ Layman reply report at [37], [38], Chart 1.

Figure 23: Difference Between Implied Market Clearing Prices from Layman Baseline Offer Curves and Actual Historical Balancing Prices³²⁸



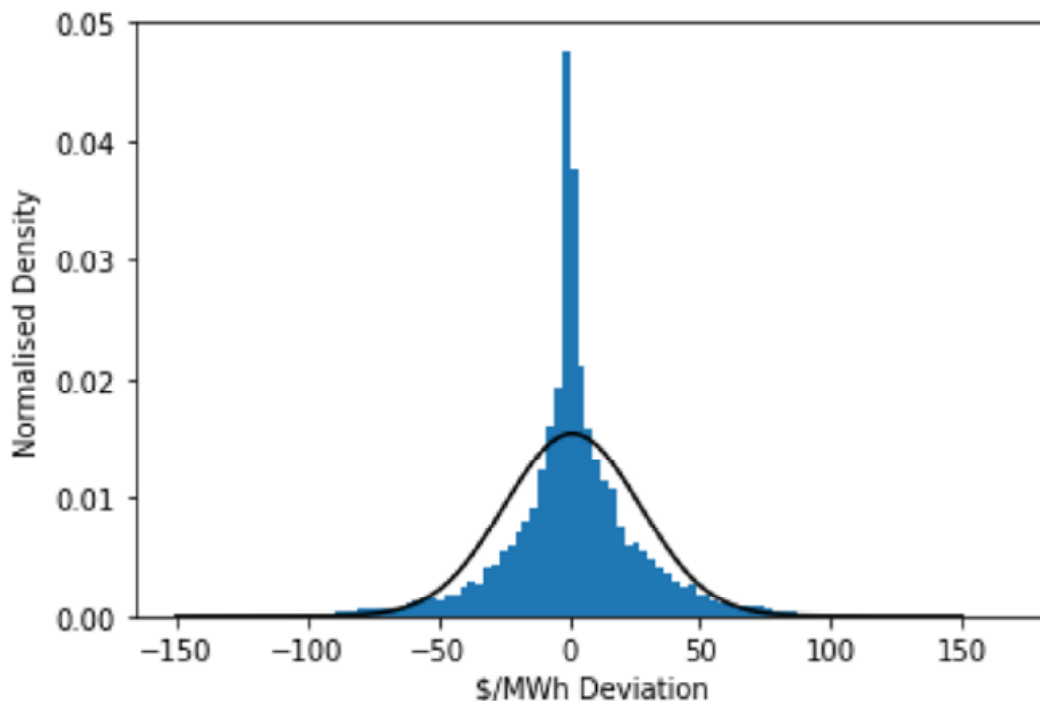
87. The orange shaded area in this chart shows the degree to which the implied balancing prices⁹⁶ generated by Mr Layman's model differed from the offers generated by PowrSym, for 50% of the relevant offers (i.e., the 25th to 75th percentile range). The yellow shaded area shows the size of variations up to 20% of the time (i.e., the 75th to 95th percentile).
88. As this graph shows, the implied balancing offer prices generated by Mr Layman's model went from about \$70 MWh below, to almost \$80 MWh above, the offers generated by PowrSym (using the same gas and start-up cost inputs). To put this in context, the historical median balancing price across the relevant 11,012 Trading Intervals was \$69.01 MWh.⁹⁷ So the offers in Mr Layman's model were higher, or lower, than the offers generated by PowrSym, by amounts that were up to – and at times greater than – the median Balancing Price.

⁹⁶ The offer price for the volume of electricity that set the Balancing Price in the relevant Trading Interval.

⁹⁷ Economic experts' report, p. 36 per Knittel (response to [24]).

89. The same results are demonstrated by the following chart (being Chart 1 in Mr Layman’s reply report).

Chart 1: Final Balancing Price Deviations: Histogram and Normally Distributed Probability Density Function, Investigation Period, Trading Intervals Under Investigation



90. In this chart, each blue bar represents a number of Trading Intervals. The number can be identified by multiplying the point on the vertical axis the blue bars reach, by 11,012. For example, the second tallest blue bar reaches about 0.037 on the vertical axis, so represents about 407 Trading Intervals ($0.037 \times 11,012$). The horizontal axis shows the degree to which the offer prices generated by Mr Layman’s model and PowerSym differed (for volumes that set the Balancing Price in the relevant Trading Intervals). For example, the second tallest blue bar sits above “0” on the horizontal axis, so in about 407 (of the 11,012) relevant Trading Intervals, both Layman’s model and PowrSym generated the same offer price.
91. So, as with the graph set out at [86] above, this graph shows that in the vast majority of cases, the offer prices generated by Layman’s model (for volumes that set the Balancing Price in the relevant Trading Intervals) were significantly above or below those generated by PowrSym.

92. Mr Layman offered various possible reasons for why his model did not replicate PowrSym, such as his use of “*simplifying assumptions*”⁹⁸ and different data concerning outages,⁹⁹ and “modelling decisions” he made to reduce run time.¹⁰⁰ The purpose of that evidence is unclear. He performed no analysis of the extent to which the differences between the outputs of his model could be explained by (one or more of) those matters, or something else entirely.
93. In any event, why his model cannot replicate PowrSym is not to the point: so long as it cannot do so, his model says nothing about any of the prices Synergy would have offered in its relevant Balancing Submissions, had Synergy used different gas and start-up cost inputs. And it is not in controversy that Mr Layman’s model’s predictions of the offer prices that PowrSym generates were not only inaccurate in the vast majority of cases, but often wildly inaccurate.¹⁰¹
94. That being so, the fact that his model might generate a particular price or offer curve using certain inputs does not show that PowrSym would do so.

Mr Layman’s model does not say anything about Synergy’s actual Balancing Submissions

95. Second: when Mr Layman was giving oral evidence, he explained that his modelling shows only some “*general relationship*” between Synergy’s gas and start-up costs (on the one hand) and its offer prices (on the other).¹⁰²
96. The precise nature of that relationship is unclear. But Mr Layman made clear – on at least six occasions¹⁰³ – that whatever the relationship is, it does not enable any conclusion to be drawn about any of Synergy’s actual Balancing Submissions. As he stressed, his model “*doesn’t say anything*” about Synergy’s actual Balancing Submissions.¹⁰⁴

⁹⁸ Layman reply report at [30], [31].

⁹⁹ Layman reply report at, e.g., [75], [76], [91].

¹⁰⁰ Layman reply report at, e.g., [37].

¹⁰¹ See Chart 1 that Mr Layman included in his reply report, reproduced at [89] above.

¹⁰² Transcript, day 5, p 124, line 23 - 25; Combined Transcript, p 507, lines 4-6.

¹⁰³ Transcript, day 5, p 122, line 19 to p 123, line 3; p 123, lines 7-8; p 124, lines 17-18; p 124, lines 23-25; p 125, lines 6-7; p 130, lines 21-22; Combined Transcript, p 504, line 25 to p 505, line 9; p 505, lines 13-14; p 506, lines 23-24; p 507, lines 5-6; p 507, lines 12-13; p 513, lines 2-3.

¹⁰⁴ Transcript, day 5, p 124, lines 23-25; Combined Transcript, p 507, lines 4-6, emphasis added.

97. The point is this.
98. Even if “*some portion*” of the offer curve his model generated when using the Synergy estimates was higher than the curve it generated when using the ERA assumptions, that circumstance does not establish what would have occurred to the offer curves PowrSym would have generated using the same inputs.

Synergy’s SRMC and Balancing Submission offer curves are not the same

99. Third: even if (contrary to the second point immediately above) Mr Layman’s modelling did show that increasing Synergy’s gas and start-up cost assumptions caused “*some portion*” of Synergy’s actual offer curve to increase, it would not follow that the portion of the offer curve that had increased would be above Synergy’s reasonable estimate of its SRMC.
100. As submitted above,¹⁰⁵ when Synergy is preparing its Balancing Submission offers, it first prepares an offer curve based on the AOC of the marginal unit, which represents its expectation of its SRMC of generating the relevant electricity. That offer curve may have substantial “spikes” in it (i.e., price-quantity pairs where the price is substantially higher than preceding and following price-quantity pairs on the curve).
101. Importantly, those spikes represent Synergy’s actual expectation of its SRMC of generating a particular volume of electricity.
102. Synergy then “smooths” the curve, then makes further adjustments, to ensure that the curve increases monotonically. This removes all “spikes” from the curve (i.e., causes the prices in the price-quantity pairs that the spikes represent to decrease).
103. By reason of this process:
- (a) there may be portions of the offer curve that Synergy includes in its Balancing Submissions that are substantially below Synergy’s reasonable expectation of its SRMC (i.e., the portions from which “spikes” have been removed);

¹⁰⁵ See [49]-[54] above.

(b) if *those portions* of the curve in Synergy's Balancing Submissions were to increase, Synergy would not be offering prices above its reasonable expectation of its SRMC.

104. Mr Layman's model might simply show one of *those portions* of the offer curve increasing, in some or all of the relevant Trading Intervals.

Assumptions used by Mr Layman to run his model

105. Fourth: Mr Layman ran his model using the Synergy estimates and the ERA assumptions only.

106. As noted above, the ERA assumptions are the gas and start-up cost estimates that Synergy used before the start of the Relevant Period, i.e., 16 April 2016. They are not estimates that Synergy need have used in order to offer prices in its Balancing Submissions that did not exceed a reasonable expectation of its SRMC. That is, Synergy may have been able to use lower estimates, and possibly higher estimates,¹⁰⁶ and still have made Balancing Submission offers that were below a reasonable expectation of its SRMC.

107. That is significant because the "*relationship*" Mr Layman says that his model identifies between Synergy's gas and start-up costs, on the one hand, and its offer prices, on the other, might only exist when his model is run with the Synergy estimates and the ERA assumptions. That is, if his model were run with gas and start-up costs other than the ERA assumptions, it may disclose either no "*relationship*", or some completely different "*relationship*", to that which he says he identified.

108. Indeed, Mr Layman acknowledged this. He made clear during his oral evidence (twice) that the "*relationship*" his model identified was based on "*cost assumptions of the scale under consideration here*".¹⁰⁷

109. Accordingly, if he ran his model using the Synergy estimates, and some other gas and start-up cost estimates (that were not the ERA assumptions), it may be that in at least some Trading Intervals, the modelling would no longer show that when the higher cost

¹⁰⁶ The ERA's case is that the gas and start-up cost estimates Synergy used were unreasonably high. There is no allegation, and there is no evidentiary foundation, as to what cost estimates it ought to have used.

¹⁰⁷ Transcript, day 5, p 91, line 23 to p 92, line 5; Combined Transcript, p 474, lines 4-11. See also Transcript, day 5, p 118, lines 5-7; Combined Transcript p 500, lines 10-12.

assumptions are used, “*some portion*” of the offer curve always increases. In at least some Trading Intervals, it may be that none of the offer curve increased.

Mr Layman assumed that all else would remain equal

110. Fifth: when running his model, Mr Layman did not evaluate the effect that revising gas or start-up inputs might have on other inputs.¹⁰⁸
111. Mr Layman, however, did not opine that changing gas and/or start-up costs did not change other inputs. In fact, the only evidence on this was advanced by Professor Knittel. In the view of Professor Knittel, a change in gas price assumptions may well have led to changes in other inputs. For example, a change in gas price assumptions could lead to a change in the forecast volume of electricity to be dispatched; which could lead to a change in the forecast volume of gas that is required; which could in turn affect forecast gas prices; which could lead to changes in spot market prices and, therefore, on the ERA’s approach, the opportunity cost of gas.¹⁰⁹ In other words, a change in one of Synergy’s input costs could trigger a set of secondary impacts, requiring the entire system to “re-balance”.¹¹⁰ Mr Layman’s modelling simply ignores this. As Professor Knittel says, that makes his model unreliable for predicting prices that Synergy’s model would generate.¹¹¹

Portions of Synergy’s offer curve will never affect the Balancing Price

112. Separately, and distinctly, even if Mr Layman’s modelling somehow showed that increasing Synergy’s gas and start-up cost assumptions by any amount would cause “*some portion*” of its actual offer curve to increase to a level that was above Synergy’s reasonable expectation of its SRMC, that too would be insufficient to establish a contravention of cl 7A.2.17 of the Market Rules.
113. That is because cl 7A.2.17 only prohibits the offering of prices above a generator’s reasonable expectation of its SRMC where the offer relates to market power. Increasing offers for “*some part*” on an offer curve need not relate to market power.

¹⁰⁸ See, e.g., Layman report at [85], [92], [93], [108], [115], [116] and footnote 59.

¹⁰⁹ Knittel report at [264], [265].

¹¹⁰ Knittel report at [264], [265].

¹¹¹ Knittel report at [265].

114. As noted above, there are up to 35 offers in any Balancing Submission. Some (and perhaps many) of those offers would be for quantities that Synergy must know, based on its experience, would not set the Balancing Price. For example, in Trading Intervals when it expects demand to be high (such as days during heatwaves), increasing offers near the bottom of its curve could never realistically affect the Balancing Price. Similarly, in Trading Intervals when Synergy does not expect demand to be high, increasing offers near the top of its curve is unlikely ever realistically to affect the Balancing Price.
115. Offers are not related to market power where they have no realistic prospect of affecting the Balancing Price. Even Mr Balchin’s evidence recognises this. He said that conduct will relate to market power where it increases the market price – in particular, where it involves “*manipulating market outcomes to drive a higher price*”.¹¹²

E. GAS COSTS

116. To establish the alleged contraventions, the ERA must also show that Synergy’s estimates of its gas costs were unreasonably inflated; and then, that these inflated gas costs resulted in prices in Synergy’s Balancing Submissions being above Synergy’s reasonable expectation of its SRMC of producing the relevant electricity. Whether or not Synergy’s estimates of its gas costs were so inflated turns, in essence, on the proper construction of the expression “SRMC” in cl 7A.2.17 of the Market Rules.
117. Specifically, in this matter, the question is whether the SRMC of generators that enter into efficient, long-term TOP contracts to acquire gas (**efficient TOP contracts**) includes:
- (a) the very (“ultra”) short term opportunity cost of such gas (only); alternatively,
 - (b) the actual (or accounting) cost of such gas.
118. The ERA does not allege that, at least in Periods 1 and 3, Synergy’s estimated cost of gas exceeded the amount that it would pay pursuant to an efficient TOP contract. If

¹¹² Balchin report at [173]. See also [184] below; which notes Mr Balchin’s focus on conduct being “related to” market power where it is engaged in profitably (which assumes that it affects the market price).

generators' SRMC may include their actual cost of gas acquired pursuant to efficient TOP contracts, the ERA's case concerning gas costs fails, at least for Periods 1 and 3.

Meaning of SRMC

119. The expression SRMC is not defined in the Market Rules. However, it is an economic term of art and plainly intended to have its economic meaning.¹¹³
120. The starting point for identifying its economic meaning is to identify the content of the term "short run". Both sides' economists agree that, in economics, the duration of the "run" identifies the period over which different costs are assumed to be fixed or variable.¹¹⁴ Over the "long run", all costs are assumed to be variable;¹¹⁵ over the "short run", some costs are assumed to be fixed.¹¹⁶
121. However, as Professor Knittel explained, there is no unique meaning of the "short run" in economic theory. The definition is more simple: at least one production input must be fixed. Accordingly, in cases where there are more than two inputs, there are multiple potential short runs that are consistent with the definition of the "short run".¹¹⁷
122. For electricity generators, there are (broadly speaking) at least six sets of inputs:
- (a) capacity;
 - (b) long-term labour contracts;
 - (c) long-term fuel contracts;
 - (d) O&M costs;
 - (e) short-term fluctuations in labour hours; and
 - (f) fuel purchases.¹¹⁸

¹¹³ See the market objectives at [12] above.

¹¹⁴ Transcript, day 4, p 20, lines 19-21 (Knittel); Combined Transcript, p 261, lines 10-12; Knittel report at [78], [88] [95]; Transcript, day 4, p 61, line 19 to p 62, line 24 (Balchin); Combined Transcript, p 302, line 14 to p 303, line 19; Balchin reply report at [62], [63].

¹¹⁵ Economic experts' report, p 10 (response to [10]).

¹¹⁶ Knittel report at [88].

¹¹⁷ Knittel report at [78], [95].

¹¹⁸ Knittel report at [95].

123. Accordingly, there could be, at least, five different “short runs” for electricity generators, where anywhere between one and five inputs are fixed.¹¹⁹
124. Mr Balchin’s primary report refers only to one definition of the “short run” (being the period in which only capital assets are fixed; and all other inputs are variable¹²⁰). However, after reviewing Professor Knittel’s report, he now describes this definition only as the “*normal focus*” of definitions of the short run;¹²¹ or a “*standard*” definition,¹²² and, critically, he now accepts that there are multiple definitions that are consistent with economic principle.¹²³

The meaning of “short run” in cl 7A.2.17

125. In that context, it is next necessary to identify which “short run” is referred to in cl 7A.2.17.
126. That will, necessarily, be informed by the market objectives.¹²⁴ As noted above,¹²⁵ the objectives of the market include:
- (a) “*promot[ing] the economically efficient, safe and reliable production and supply of electricity and electricity related services in the SWIS*”; and
 - (b) “*minimis[ing] the long-term cost of electricity supplied to customers from the SWIS*”.
127. This suggests that the intended meaning of the “short run” in cl 7A.2.17 is that which is the most likely to result in the economically efficient, safe and reliable production and supply of electricity in the SWIS, and to minimise the long-term cost of electricity.

¹¹⁹ Knittel report at [95].

¹²⁰ Balchin report at [6], [69].

¹²¹ Balchin reply report at [62]; and, similarly, Transcript, day 5, p 65; Combined Transcript, p 447-448.

¹²² Economic experts’ report, pp 9 (response to [8]) and 10 (response to [9]); and, similarly, Transcript, day 4, p 63; Combined Transcript, p 304.

¹²³ Economic experts’ report at p 9 (response to [8]); Transcript, day 4, p 65, line 8 – 15; Combined Transcript p 306, lines 3-10.

¹²⁴ See, e.g., *Bluewaters Power 2 Pty Ltd v AEMO* [2017] WASC 98 at [39] – [42]; *Alcan (NT) Alumina Pty Ltd v Commissioner of Territory Revenue (NT)* (2009) 239 CLR 27 at [47]; *Jemena Asset Management (3) Pty Ltd v Coinvest Ltd* (2011) 244 CLR 508 at [50]; *R v Getachew* (2012) 286 ALR 196; [2012] HCA 10 at [11]; *Commissioner of Taxation v Consolidated Media Holdings Ltd* (2012) 293 ALR 257; [2012] HCA 55 at [39]; *Certain Lloyd’s Underwriters v Cross* (2012) 293 ALR 412; [2012] HCA 56 at [23].

¹²⁵ See [12].

128. And that, in turn, directs attention to the potential for whether one or more of the possible definitions of the “short run” may create a “missing money” problem.

Missing money

129. “Missing money” is an expression used to describe a circumstance where, in a controlled market, features of the market design prevent electricity generators from being able to earn revenues that would enable them to pay down their fixed costs over time.¹²⁶
130. Both economic experts accept that missing money creates inefficiency: it deters efficient investment in generation resources (including efficient entry into and exit from the market), which in turn impedes long-run dynamic efficiency, preventing minimization of system resource costs.¹²⁷ It can also harm the overall reliability of the electrical system.¹²⁸ It is thus self-evident that a construction of the “short run” that avoids missing money is to be preferred over one that would create missing money.
131. As Professor Knittel explained, if an “ultra-short run” view of SRMC is adopted, and generators are required to develop their Balancing Submission offers based on the prevailing “market price” for gas, rather than the cost of gas acquired pursuant to efficient TOP contracts, there would be a “missing money” problem.
132. Importantly, long-term TOP gas contracts are the key source of domestic gas supply in Western Australia. Short-term gas spot markets only provide interruptible gas supply at very low volumes.¹²⁹
133. Further, as noted above,¹³⁰ to qualify for capacity payments under the Reserve Capacity Mechanism, generators must have, *inter alia*, firm fuel procurement contracts sufficient to run their generators for 14 hours consecutively for the period from 8am to 10pm on Business Days from 1 October to 31 July of the Capacity Year. The practical effect of this requirement is that if generators wish to receive capacity

¹²⁶ Transcript, day 4, p 20, line 22 to p 21, line 4; Combined Transcript, p 261, lines 13-20.

¹²⁷ Economic experts’ report, p 12 (response to [18]). See also Knittel report at [92].

¹²⁸ Economic experts’ report, p 12 -13 (Prof Knittel’s response to [18]).

¹²⁹ Knittel Report at [71], in particular footnote [134].

¹³⁰ See [36] above.

payments (using gas as a fuel source¹³¹), they must enter into long-term TOP gas supply contracts. Yet those payments do not compensate generators (at all) for the cost of gas acquired under long-term TOP contracts (efficient or otherwise).¹³² So if an “ultra-short run” conception of SRMC were adopted, generators would (practically) be forced into entering into long-term TOP contracts, yet may not recover the cost of gas acquired under those contracts.

134. In addition, the caps the Market Rules impose on the prices generators can offer in their Balancing Submissions prevent higher-priced gas generators (central to reliability of supply) from recovering their actual costs through balancing prices.¹³³ The caps prevent recovery of actual costs because they are maximum STEM prices, which are established by reference to the short run costs generation resources incur during times when supply and demand are tight.¹³⁴ Maximum STEM prices contemplate only a small amount of interruptible natural gas supply from the spot market,¹³⁵ which does not reflect the nature of the long term, large volume of firm gas supply required by an efficient gas generator in Synergy’s position (i.e., the cost of gas acquired under an efficient TOP contract).¹³⁶
135. Accordingly, without the price caps, generators would expect to lose money during low-load, low-price trading intervals, but profit during high-load, high-price trading intervals, such that on average, over time, they would expect to recover their (actual) cost of gas.¹³⁷ But with the price caps, gas generators’ ability to profit during high-load, high-price intervals is impaired.¹³⁸ Gas generators face all of the downside risk of entering into an efficient TOP contract, but only some of the upside benefit. And on average, over time, they would expect not to recover their (actual) cost of gas, and therefore to lose money.¹³⁹

¹³¹ As noted in [137] below, generators could use diesel as a fuel source and still qualify for capacity payments.

¹³² Knittel report at [98] and footnote 156.

¹³³ Transcript, day 4, p 23, lines 10-13; p 135, line 2 to p 136, line 1; Combined Transcript, p 264, lines 1-4; p 376, line 10 to p 377, line 9.

¹³⁴ Knittel report at [99].

¹³⁵ Knittel report at [99].

¹³⁶ Knittel report at [99]. See also [71], [73] and [107].

¹³⁷ Transcript, day 4, p 22; Combined Transcript, p 262-263.

¹³⁸ Transcript, day 4, pp 23 and 135; Combined Transcript, p 263-264 and 376-377.

¹³⁹ Transcript, day 4, pp 22, 23, 135; Combined Transcript, p 262-263, 263-264, 376-377.

136. So, in the context of the design of the WEM, a construction of the “short run” that does not permit generators to include the cost of gas acquired pursuant to efficient TOP contracts in their Balancing Submissions would create “missing money”,¹⁴⁰ and be contrary to the market objectives.
137. Further, and in any event, unless generators can include the cost of gas acquired pursuant to efficient TOP contracts in their Balancing Submissions, they would have an incentive to, instead, use high cost diesel as a fuel source. That is because:
- (a) diesel can be readily acquired in sufficient volumes from spot markets, so the cost of it would be a component of the generator’s SRMC, even on Mr Balchin’s definition of the expression. Accordingly, generators would face no risk of being unable to source, or recover their (actual) cost of, the fuel;¹⁴¹ and
 - (b) using diesel as a fuel source may yield similar expected profit to gas: as Professor Knittel explained, every generator would have an incentive to rely on diesel, and at least one equilibrium of such a scenario is that every generator would rely on diesel.¹⁴²
138. It is common ground that using diesel as a fuel source would be highly inefficient, and lead to higher electricity prices for consumers and other social costs, including greater pollution.¹⁴³
139. For these reasons, a definition of the “short run” that allows recovery of the cost of gas acquired pursuant to efficient TOP contracts is to be preferred. As Professor Knittel explained, an appropriate definition would be the period prior to signing a long-term firm natural gas contract.¹⁴⁴

¹⁴⁰ As Professor Knittel explained, that would be so even if Balancing Prices were not to reach the price caps. So long as, *ex ante*, it would be possible for Balancing Prices to hit the caps, rational generators would expect to lose from entering into efficient TOP contracts: Transcript, day 4, pp 135-136; Combined Transcript, p 376-378.

¹⁴¹ Knittel report at [139]-[144]; Transcript, day 4, p 23, line 22 to p 24, lines 4; Combined Transcript, p 264, lines 13-20.

¹⁴² Transcript, day 4, p 133, lines 21 - 25; Combined Transcript, p 375, lines 4-8.

¹⁴³ Knittel report at [132]-[144]; Transcript, day 4, p 111 (Balchin); Combined Transcript, p 352.

¹⁴⁴ Transcript, day 4, p 20, lines 13-18; Combined Transcript, p 261, lines 3-9.

Mr Balchin's opinions

140. Mr Balchin considers that a definition of SRMC that would allow generators to include the actual cost of gas acquired under an efficient TOP contract in their Balancing Submissions would be inapt, principally for two reasons:
- (a) first: Mr Balchin focusses on the words “marginal cost” in SRMC. He says that a marginal cost is the cost of producing an additional unit of output; and since the cost of gas acquired pursuant to an (existing) TOP contract is fixed, it cannot be a cost of producing an additional unit of output;¹⁴⁵
 - (b) second: Mr Balchin says that allowing generators to treat their (actual) cost of gas as a component of their SRMC would be inconsistent with how competitive markets work and would reduce the efficiency of the WEM.¹⁴⁶

Mr Balchin's focus on the words “marginal cost”

141. Mr Balchin's focus on the words “marginal cost” (alone) in the expression “SRMC” is inapt, for two distinct reasons.
142. First: those words do not determine which costs are fixed, and which costs are variable. As noted above, the duration of the “run” is what determines whether a cost should be treated as fixed or variable.¹⁴⁷ Professor Knittel explained why:¹⁴⁸

Marginal cost has a very specific definition in economics, and it's the derivative ... of the total cost curve. The derivative of cost will only depend on the variable cost. So once you define what short run you're talking about, that automatically defines which costs are variable, which then automatically defines what marginal costs look like.

143. Second: and further, Mr Balchin's construction of the expression “SRMC” renders the words “short run” otiose. A basal principle of construing legislation and related

¹⁴⁵ Transcript, day 4, p 71, line 1 to p 72, line 5; Combined Transcript, p 311, line 21 to p 312, line 25.

¹⁴⁶ Balchin reply report at [28]-[30], [34]-[36].

¹⁴⁷ Transcript, day 4, p 20, lines 19-21 (Knittel)]; Combined Transcript, p 261, lines 10-12; Knittel report at [78], [88] [95]; Transcript, day 4, p 61, line 19 to p 62, line 24 (Balchin)]; Combined Transcript, p 302, line 14 to p 303, line 19; Balchin reply report at [62], [63].

¹⁴⁸ Transcript, day 4, p 20, line 23 to p 21, lines 5; Combined Transcript, p 261, lines 14-20.

instruments is that a construction that would create surplusage is not adopted if by any other construction all words may be made useful and pertinent.¹⁴⁹

Mr Balchin’s focus on “competitive markets”

144. Mr Balchin’s analogy to what would occur in “competitive markets” is also inapt.
145. As Professor Knittel explained, if the WEM were in fact a perfectly competitive market (including with a liquid and transparent gas market and without any regulatory distortions), a construction of the expression “SRMC” by which generators could only recover the opportunity cost of gas acquired pursuant to an efficient TOP contracts would not create a missing money problem. That is because generators would expect to lose money during low-load, low-price trading intervals, and profit during high-load, high-price trading intervals – in equal measure. The average return they could expect to receive from entering into an efficient TOP contract would therefore be zero.¹⁵⁰
146. But as submitted above, the WEM is not such a market. It has significant distortions, including, *inter alia*, price caps, by reason of which generators would, acting rationally, expect to lose money by entering into an efficient TOP contract. Moreover, in the WEM, unless generators can include the cost of gas acquired under an efficient TOP contract in their Balancing Submissions, they will have an incentive to use diesel as a fuel source instead, which would be highly inefficient (and not what would occur in a competitive market).

Mr Balchin’s approach to start-up costs

147. Lastly, there is a feature of Mr Balchin’s opinion which is entirely inconsistent with the ERA’s case, both as pleaded by it, and (in any event) as understood by Synergy.
148. The ERA commenced this proceeding over two years ago. For the entire duration of the proceeding, including throughout the concurrent evidence sessions, its pleaded case has been that start-up costs form part of a generator’s SRMC.¹⁵¹ That case ought

¹⁴⁹ See, e.g., *Project Blue Sky v Australian Broadcasting Authority* (1998) 194 CLR 355 at [71] (McHugh, Gummow, Kirby and Hayne JJ).

¹⁵⁰ Transcript, day 4, p 135; Combined Transcript, p 376-377.

¹⁵¹ See [83] of the ERA’s Amended Statement of Facts, Issues and Principal Contentions (“*start-up costs are appropriately included in Synergy’s SRMC*”).

be accepted as accurate; for at least this reason. If generators cannot include start-up costs in their Balancing Submissions there would be a missing money problem. Generators would have an incentive not to start generators and supply electricity.¹⁵² That would be highly inefficient and detrimental to consumers; and, more generally, security of electricity supply.¹⁵³

149. Mr Balchin’s approach to the meaning of SRMC would create that missing money problem, because it does not encompass generators’ start-up costs.¹⁵⁴ Mr Balchin seeks to sidestep this difficulty with his approach to the meaning of SRMC, by suggesting that generators can include start-up costs in their Balancing Submissions because doing so could not be said to be “related to” market power.¹⁵⁵ But that makes no sense: he says that offering prices above a firm’s SRMC is only possible if a firm has market power; and that it is evidence of market power.¹⁵⁶ If that is so, including start-up costs in Balancing Submission offers must be an exercise of market power.
150. Mr Balchin’s approach to the definition of SRMC is thus internally inconsistent, logically incoherent and in context unworkable. If offering prices above a firm’s SRMC is an exercise of market power – as Mr Balchin has said repeatedly¹⁵⁷ – his approach would demand the conclusion that generators are unable to include start-up costs in their Balancing Submission offers. That would plainly be contrary to the market objectives. It should be rejected.¹⁵⁸
151. The question for the Board, recognising and giving proper effect to the WEM objectives, is what construction of the expression “SRMC” is correct. That determination will guide not only Synergy’s behaviour going forward (in relation to bidding in the Balancing Market and procurement of fuel), but also that of other market participants. Until Day 1 of the hearing – 10 May 2021 – the parties agreed that variable start-up costs formed part of the SRMC. There was a consensus on this position. Obviously, the Regulator’s position ought be clear (and not coy) on this

¹⁵² See, similarly, Balchin report at [88.a].

¹⁵³ See, similarly, Balchin report at [88.a].

¹⁵⁴ Balchin report at [87.b]; Transcript, day 4, p 84 - 87; Combined Transcript, p 324-328.

¹⁵⁵ See, similarly, Balchin report at [88.a].

¹⁵⁶ Balchin report at [36.h.], [38], [173], [222], [245.h.]; Balchin reply report at [14.h.].

¹⁵⁷ Balchin report at [38], [173.a], [173.b], [173.c], [221], [222] and, in particular, [245.h.]; Balchin reply report at [14.h.].

¹⁵⁸ If Mr Balchin’s approach were adopted it is also unclear what work the words “related to market power” in cl 7A.2.17 would have to do.

issue. But whatever the Regulator’s position may be, the correct definition of SRMC, in the context of cl 7A.2.17 of the Market Rules and in light of the WEM market objectives, is that identified by Professor Knittel.

Reliance on a “market” price of gas is inapt

152. A further difficulty with Mr Balchin’s approach to the meaning of SRMC in cl 7A.2.17 is that the opportunity cost of gas is, he says, the “market” price of gas.¹⁵⁹ For the reasons set out below, that approach is fraught; and in particular unworkable practically in the relevant market.
153. First: it is unclear what exactly Mr Balchin means by a “market” price of gas; his concept is thus unstable. When giving oral evidence, he said that he does not have in mind the economic concept of a market, but rather a “small M market”, being “a place where trade occurs”.¹⁶⁰ But the economic concept of a market is one in which gas supplies that are substitutable with one another occur¹⁶¹ – i.e., it identifies sources of supplies that generators might realistically use. If the relevant market is not an economic one, presumably it includes gas supplies that are not substitutable. They are, by definition, inapt for identifying the price at which a generator might buy gas.
154. Second: although it is noteworthy that he moved from this position in his reply report,¹⁶² in his primary report Mr Balchin said that spot markets are suitable for identifying the market price of gas.¹⁶³ As Professor Knittel cogently explained, that is not so.¹⁶⁴ Long term gas supply contracts and spot market sales are fundamentally different products. They have different commercial terms (including, importantly, whether supply can be interrupted) and are therefore priced very differently.¹⁶⁵ Moreover, as Mr Balchin acknowledged (when giving oral evidence), using spot markets as a proxy for the “market” price of gas would create “a whole bunch of

¹⁵⁹ See, e.g., Balchin reply report at [3].

¹⁶⁰ Transcript, day 4, p 97, line 21 to p 98, line 3; Combined Transcript, p 338, line 21 to p 339, line 3.

¹⁶¹ See, e.g., the definition of “market” in s 4E of the *Competition and Consumer Act 2010* (Cth); and *Re Queensland Co-Op Milling Association Limited and Defiance Holdings Limited* (1976) ATPR 40-012 (*Re QCMA*) at [17247].

¹⁶² Balchin reply report, e.g. at [10].

¹⁶³ Balchin report at [114], [123].

¹⁶⁴ Knittel report at [151]-[155]; Economic experts’ report, pp 4-5 (response to [8]) and 20 (response to [33]).

¹⁶⁵ Economic experts’ report, pp 4-5 (response to [8]) and 20 (response to [33]).

perverse incentives".¹⁶⁶ For example, given how "thin" spot markets are,¹⁶⁷ generators could quickly drive up spot prices (at will), and thereby artificially create a basis for estimating high "market" prices.

155. Further, there can be large inter-day variations in generators' requirements for gas (e.g. during the investigation period Synergy required an average of [REDACTED] but a maximum of [REDACTED]).¹⁶⁸ Since gas spot markets are illiquid and opaque, the spot price would become highly volatile if generators were incentivised to meet those requirements from spot markets.¹⁶⁹ Indeed, spot markets would not even be capable of meeting generators' gas requirements.¹⁷⁰
156. Third: Mr Balchin's alternative approach – relying not just on the spot market but other sources of information such as actual sales – is highly impracticable. And it is highly impractical in a market in which the economic actors need certainty. The impracticality is manifold:
- (a) Given that supply contracts are confidential in the WA market, how are generators to identify what contracts exist, and their terms? Are they required to apply to a court for subpoenas to be issued for relevant contracts? And if so, are they permitted to review the subpoenaed contracts themselves, or appoint some third party to do so?
 - (b) How many contracts need generators obtain? Are older contracts to be ignored? Or given less weight? How old need contracts be before they are ignored / given less weight? How would any weighting be performed?
 - (c) Is the relevant price the highest price across the portfolio of contracts? Or the average price? Terms other than price will also vary – e.g., some supply will be firm and other supply will be interruptible, which will affect the price. How is that to be dealt with? Further, as noted above, generators' inter-day gas requirements can vary substantially. Is it even possible to find a reference

¹⁶⁶ Transcript, day 4, p 95, line 23 to p 96, line 2; Combined Transcript, p 336, line 23 to p 337, line 2.

¹⁶⁷ See, e.g., Clare statement at [54], [55]; Knittel report at [71].

¹⁶⁸ Clare statement at [35A].

¹⁶⁹ Knittel Report at [152] and footnote 229.

¹⁷⁰ Cf. Clare statement at [53] and [54].

contract, or portfolio of reference contracts, that provides for such large variability in delivered quantities?¹⁷¹

(d) How often must the review occur (monthly, biannually, annually)? How long will this process take (and what will be its cost)?

157. Mr Balchin accepted that he did not give any of these matters any serious consideration. As he said in oral evidence, he focussed only on the “*objective*”; the practicalities, he acknowledged – in no little understatement – “*needs to be given some thought*”.¹⁷²

158. That the ERA did not present cogent evidence on these serious issues is obviously unsatisfactory. These are real issues that not only Synergy, but all generators in the market, would face and need immediate practical solutions to, if Mr Balchin’s approach to the definition of SRMC were to be accepted.

159. The inevitable conclusion is this. The manifest difficulty in identifying a “market” price for gas suggests that Mr Balchin’s construction of “SRMC” is unlikely to reflect the intended operation of cl 7A.2.17. The correct construction of cl 7A.2.17 needs certain and stable application by participants in the marketplace.

F. START-UP COSTS

160. The ERA contends that Synergy’s estimates of its start-up costs were unreasonably high.

161. The ERA seeks to make good this contention principally by reference to Synergy’s methodology for estimating its start-up costs.¹⁷³ The ERA contends that Synergy’s methodology for estimating its start-up costs was “unreasonable”, because it did not incorporate appropriate “lifetime planning”.¹⁷⁴ This, the ERA alleges, caused Synergy

¹⁷¹ If such contracts do not exist (and they are unlikely to exist in Western Australia), the only alternative is to buy from the spot market, and this will either cause the spot market price to be incredibly volatile: Knittel Report at [152] and footnote [229]. Regularly, there will be insufficient gas available in such spot markets: see Amended Clare Witness Statement at [53] and [54].

¹⁷² Transcript day 4, p 107, line 22 to p 108, line 1; Combined Transcript, p 349, lines 3-7.

¹⁷³ See, in particular, the questions it asked Mr Reid, on whose opinion the ERA relies to establish its case concerning start-up costs: Reid report at pp 5, 10, 15, 22.

¹⁷⁴ Ibid.

to include in its Balancing Submissions amounts for start-up costs that it was not likely actually to incur.

162. The ERA's approach to start-up costs is, however, inapt. It should be rejected for three distinct reasons.

No requirement to have a “reasonable methodology” when estimating start-up costs

163. First: the ERA's approach to start-up costs starts with, and is premised upon, the notion that generators must have “reasonable methodologies” for estimating start-up costs. But there is no such requirement in cl 7A2.17; or elsewhere in the Market Rules. It is, rather, a gloss that the ERA seeks to superimpose. The Market Rules say nothing at all about how, or when, start-up costs may be included in Balancing Submissions. For example, there is no requirement that start-up costs be:

- (a) allocated to starts;
- (b) recovered evenly across starts (e.g., by allocating a similar amount to each start);
- (c) recovered across all starts (cf. allocating them only to particular starts, such as in particular periods); or
- (d) “smoothed” across Trading Intervals.

164. While some generators (such as Synergy) may choose to treat start-up costs in one of these ways, there is no requirement that they do so. The correct position is this. Generators can include an allowance for start-up costs in their Balancing Submissions as they see fit, so long as in making offers in each Balancing Submission they do not exceed a reasonable expectation of their SRMC in a way that is related to market power.

165. Glosses on statutory text are unhelpful for a good reason: the gloss has a tendency subtly to introduce preconceptions, or at best to divert attention from the precise test

that has been adopted.¹⁷⁵ That is precisely what the ERA's focus on the "reasonableness" of Synergy's "methodology" for estimating start-up costs does.

166. One illustration will suffice.
167. The ERA contends that, by reason of Synergy's "unreasonable" methodology for estimating start-up costs, it contravened cl 7A.2.17 of the Market Rules whenever that methodology was applied. But that plainly cannot be so. Start-up costs are not incurred each time a gas generator starts. For gas generators, variable costs are costs that generators typically incur (infrequently) when performing inspections; and replacing parts. Further, they may be recovered by generators in advance of being incurred, in small, incremental portions. So it may take considerable time – indeed, years – for a specific cost to be recovered in full.
168. Consequently, having an "unreasonable" methodology for estimating start-up costs does not mean that Synergy contravened cl 7A.2.17 whenever that methodology was applied. At its highest for the ERA's true contention, the methodology may have produced some level of "over-recovery" at some point in the future (depending on various matters, some of which we identify below). But on any analysis, it would take a long time – often years – for any "over-recovery" to occur. And unless and until that time is reached, Synergy would **not** have included any allowance for start-up costs, in any Balancing Submission offer, that exceeded its actual start-up costs.
169. Accordingly, the ERA's case – the reasonableness of Synergy's methodology for estimating its start-up costs – is simply inapt. It should be rejected. The case does not assist the Board in determining whether or not Synergy did, in fact, include any allowance in its Balancing Submission offers that was greater than its actual start-up costs. And so, it follows, the case does not assist the Board in identifying any Balancing Submission offer in which Synergy's approach to start-up costs has caused it to offer a price in excess of its reasonable expectation of its SRMC.

¹⁷⁵ See, e.g., *Commonwealth of Australia v The Human Rights and Equal Opportunity Commission* [1998] FCA 3 (Burchett, Drummond and Mansfield JJ); *Marks v Marks & Ors* [2003] WASCA 297 at 11 (Murray, with whom Parker J agreed).

No evidence that Synergy recovered more than its actual start-up costs

170. Second: the ERA has not sought to establish that Synergy included in its Balancing Submission offers allowances that were, in fact, greater than its actual start-up costs.
171. The evidence of Mr Reid is not that Synergy did include in its Balancing Submissions allowances for start-up costs that are greater than the amount it will spend. Rather, Mr Reid’s opinion is that, by reason of its methodology for estimating start-up costs, Synergy is likely to have included in its Balancing Submissions more for start-up costs than it will spend.¹⁷⁶
172. As Mr Reid acknowledges, whether or not Synergy will, ultimately, have recovered more than its actual start-up costs is presently both unclear; and unknowable.¹⁷⁷ It will depend on a series of matters: most importantly, the date on which Synergy’s facilities are retired – which is presently unclear; and unknowable.¹⁷⁸ As a further and distinct matter, it will be relevant how Synergy seeks to estimate its start-up costs going forward (from the end of the Relevant Period). Synergy may, for example, adopt a different methodology for estimating its start-up costs. It may even cease charging start-up costs entirely for a period, if that were thought necessary to ensure that it did not recover more than its actual costs.
173. The short point is this: Mr Reid does not identify any amount that Synergy has included in its Balancing Submissions that, in fact, Synergy will not incur. Accordingly, his evidence does not establish that Synergy’s approach to start-up costs means that it will recover more than its actual start-up costs; and *a fortiori* does not establish that the approach caused its Balancing Submission offers to be above its reasonable expectation of its SRMC.

How start-up costs are related to market power

174. Third: further and in any event, there is no evidence that adopting an “unreasonable” methodology for estimating start-up costs would involve an exercise of market power.

¹⁷⁶ See, e.g., Engineering experts’ joint report, pp 1, 4, 5.

¹⁷⁷ See, e.g., Engineering experts’ joint report, pp 1, 4, 5.

¹⁷⁸ See, e.g., Engineering experts’ joint report, p 1.

175. Mr Balchin suggested that if Synergy were actually to include in its Balancing Submissions allowances for start-up costs that were greater than its actual start-up costs, that would be inconsistent with how a competitive market works, so would involve an exercise of market power.¹⁷⁹ But as submitted above, Mr Reid’s evidence does not establish that Synergy has, in fact, included in its Balancing Submissions any allowances above its actual start-up costs. And neither Mr Balchin, nor any other witness, suggested that adopting a particular methodology (reasonable or otherwise) for estimating start-up costs might, of itself, be an exercise of market power.

Mr Lou’s amended witness statement

176. The only evidence that Synergy included in its Balancing Submissions allowances for start-up costs that it will not incur is the evidence that Mr Lou gave, candidly, acknowledging an inadvertent error by Synergy that he identified in the course of preparing his evidence.¹⁸⁰

177. But that does not give rise to any contravention of cl 7A.2.17 for the reasons referred to in Section D above, and Section G below.

G. MARKET POWER

178. To establish the alleged contraventions, the ERA must establish that Synergy had market power at all relevant times; and, critically, that its relevant behaviour was related to that market power. For the reasons set out below, it has not done so.

First - Existence of market power

179. In seeking to establish that Synergy had market power at all relevant times, the ERA did not lead evidence about whether or not raising prices above competitive levels would have been profitable for Synergy. The witness whose opinion it relied on to establish that Synergy had market power was Mr Balchin. In his primary report, Mr Balchin said: “*in this case, the main indicator of market power that is relevant to electricity generation that I have **not investigated** in detail is that of profitability.*”¹⁸¹

¹⁷⁹ Balchin report at [88.a].

¹⁸⁰ Lou statement at [41A].

¹⁸¹ Balchin report at [32], emphasis added.

180. And yet: as Professor Knittel explained, unless Synergy was able to increase prices above competitive levels profitably (for a sustained period), it did not have market power.¹⁸² The ability to raise prices profitably is the essence of market power: it is the benefit that firms that have market power enjoy.¹⁸³
181. Indeed, the ACCC defines market power as “*the ability of a firm to **profitably** sustain prices above competitive levels*”.¹⁸⁴ Similar definitions are adopted by competition regulators around the world, including in the United Kingdom, the European Union and the United States;¹⁸⁵ and in rules relating specifically to electricity markets.¹⁸⁶ Unsurprisingly, in his 22 year teaching career, Professor Knittel has not taught any definition of market power in which the ability to raise prices profitably does not exist.¹⁸⁷
182. In his reply report, Mr Balchin resisted the notion that, for a firm to have market power, it must be able to price above competitive levels profitably, describing it as “*not obvious*”¹⁸⁸ to him. But, tellingly, neither he nor the ERA has been able to identify any definition of market power, in any jurisdiction, or for any market, that supports the notion that firms can have market power without the ability to raise prices profitably.
183. Moreover, Mr Balchin’s evidence is difficult to reconcile with the opinions he expressed in his primary report. This is the true clue. For in his primary report, Mr Balchin defined market power as the ability to engage in relevant behaviour profitably. He said, at [33]:

“[t]he essence of market power is that the absence of sufficient competition provides the firm with the ability to act in a manner that it would be unable

¹⁸² See, e.g., Knittel report at [160]-[163].

¹⁸³ Transcript, day 5, p 52, line 1 – 4; p 53, lines 2 – 16; Combined Transcript, p 434, lines 5-8; p 435, lines 6-20.

¹⁸⁴ ACCC, “Guidelines on Misuse of Market Power” (August 2018) p 6; Balchin report at [170].

¹⁸⁵ Knittel report at [160].

¹⁸⁶ Transcript, day 5, p 50, lines 13-18; Combined Transcript, p 432, lines 17-22.

¹⁸⁷ Transcript, day 5, p 50, lines 13-18; Combined Transcript, p 432, lines 17-22. A similar definition has also been adopted in regulatory proceedings in electricity markets in Canada: see Knittel report, footnote [259] (on p 101).

¹⁸⁸ Balchin reply report at [19], [74].

to do (*or at least unable to do so profitably*), and so would not be expected to be observed, in a market that is competitive” (emphasis added).¹⁸⁹

184. And he went on to identify whether conduct is “related to” market power by reference to whether or not it could be engaged in profitably. For example, he said:

- (a) at [38]: “...the offering of prices that are above SRMC is conduct that a firm *could not do profitably* in a competitive market, and so this conduct is related to market power” (emphasis added);
- (b) at [172]: “conduct can be said to relate to market power where it would not be observed, *and would not be profitable*, in a competitive market” (emphasis added); and
- (c) at [221]: “as Synergy would not have been able to engage in this activity *profitably* in a competitive market, any offering of capacity into the Balancing Market at above the SRMC relates to that market power” (emphasis added).

185. At one point during his oral evidence, Mr Balchin suggested that the decision of the Australian Competition Tribunal in *Re QCMA* supported the notion that it was not necessary for firms to be able to raise prices profitably to have market power. But far from supporting that notion, *Re QCMA* contradicts it. In its discussion of principles relating to competition and market power, the Tribunal said (emphasis added):¹⁹⁰

As was said by the U.S. Attorney-General’s National Committee to Study the Antitrust Laws in its Report of 1955 (at p. 320):

“The basic characteristic of effective competition in the economic sense is that no one seller, and no group of sellers acting in concert, *has the power to choose its level of profits* by giving less and charging more. Where there is workable competition, rival sellers, whether existing competitors or new potential entrants into the field, would keep *this power* in check by offering or threatening to offer effective inducements....”

Or again, as is often said in U.S. antitrust cases, *the antithesis of competition is undue market power*, in the sense of the power to raise price and exclude entry.

¹⁸⁹ See also [245.h]: “the ability for Synergy *profitably* to offer capacity into the Balancing Market at prices that exceed SRMC is something that is, of itself, strong evidence that Synergy possessed market power” (emphasis added).

¹⁹⁰ At [17247].

186. The Tribunal was plainly equating market power with the ability of firms to choose their level of profits – to engage in conduct such as raising prices in a way that would increase profits. It was, accordingly, adopting the same view of market power as the ACCC and other competition regulators around the world – namely, that the essence of market power is the ability to price above competitive levels profitably.
187. *Re QCMA* has been referred to with approval many times, including by the High Court,¹⁹¹ the Full Court of the Federal Court¹⁹² and in subsequent decisions of the Australian Competition Tribunal.¹⁹³ The notion of market power the Tribunal described therein is the accepted meaning of market power in Australian jurisprudence.
188. In cross-examination of Professor Knittel, the ERA also appeared to propose a theory that the ACCC’s definition of market power is designed and apt for assessments of prospective mergers (i.e., to identify whether a proposed merger would, in the future, lessen competition), not assessment of historical conduct such as that in issue in this proceeding. That theory can quickly be rejected. The ACCC’s definition of market power is found in its guidelines on *market power*, not mergers. The stated purpose of its market power guidelines is to set out the “*general approach the ACCC will take in investigating alleged contraventions of s 46*” of the *Competition and Consumer Act 2010* (Cth) (the prohibition on misuse of market power).¹⁹⁴ Investigations of alleged contraventions of s 46 (necessarily) concern historical conduct. So the definition of market power referred to above is intended for and applied to precisely the kind of historical conduct in issue in this proceeding.
189. The Board should find that the meaning of “market power” in cl 7A.2.17 of the Market Rules is consistent with that adopted by Professor Knittel, the ACCC, other competition regulators around the world and in Australian jurisprudence, including *Re*

¹⁹¹ See, e.g., *Air New Zealand Ltd v Australian Competition and Consumer Commission* [2017] HCA 21 at [22]-[34], [86]-[87], [169]; *Boral Besser Masonry Ltd v ACCC* (2003) 215 CLR 374 at [248]; *Queensland Wire Industries Pty Ltd v Broken Hill Pty Co Ltd* (1989) 167 CLR 177 at 199- 120.

¹⁹² See, e.g., *ACCC v Australian Competition Tribunal* [2017] FCAFC 150 at [10], [11], [47]; *ACCC v Pacific National Pty Limited* [2020] FCAFC 77 at [100], [101], [197], [265]; *ACCC v Baxter Healthcare Pty Ltd* (2008) 249 ALR 674 at [93]; *ACCC v Metcash Trading Ltd & Anor* (2011) 198 FCR 297 at [259].

¹⁹³ See, e.g., *Applications by Tabcorp Holdings Limited* [2017] ACompT 5 at [28], [59], [274]; *Application for Authorisation of Acquisition of Macquarie Generation by AGL Energy Limited* [2014] ACompT 1 at [161], [202], [372]; *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2 at [1009], [1015], [1133].

¹⁹⁴ See Tender Bundle, 080.11.

QCMA. It requires that generators have the ability to raise prices profitably above competitive levels for a sustained period.

Second - No evidence that the impugned conduct was likely to be profitable

190. As noted above, the ERA has not led evidence about whether or not Synergy was able to raise prices profitably for a sustained period. In his primary report, Mr Balchin made clear that he had considered whether to analyse profitability, and had chosen not to do so.¹⁹⁵
191. Such analysis would obviously be required to establish that Synergy was able to raise prices above competitive levels profitably. As Professor Knittel explained, even if increasing Synergy's gas and/or start-up cost estimates were to have had the effect of increasing all of Synergy's relevant Balancing Submission offers, that need not have been profitable for Synergy. There are two reasons why that is so.
192. First: increasing Synergy's offer prices may have caused it to lose sales. That is, it may have caused Synergy's offers to be placed higher on the BMO than other generators' offers, and therefore caused Synergy's generators to be dispatched less frequently. Raising its prices may, accordingly, have caused Synergy to lose revenue and profit.¹⁹⁶
193. Second: as noted above, Synergy is not only a Market Generator that offers electricity for dispatch in the Balancing Market; it is also a Market Customer.¹⁹⁷ Synergy is the sole supplier of electricity to consumers that acquire less than 50 MWh of electricity per year (i.e., most residential and small business consumers), which account for a large part of the total electricity consumed in the SWIS.¹⁹⁸ And for a significant amount of that electricity, Synergy buys electricity through the Balancing Market. So any benefit that it might receive from being able to sell electricity at higher prices may be (whether partially or wholly) offset by the higher prices it pays as a buyer of electricity. Further, and importantly, if Synergy pays higher prices as a buyer of

¹⁹⁵ Balchin report at [32].

¹⁹⁶ Knittel report at [187]-[189].

¹⁹⁷ See [40] above.

¹⁹⁸ See [42] above.

electricity, it cannot simply pass those higher prices on to its retail customers, because its retail prices are set by the Western Australian State Government.¹⁹⁹

194. So, increasing Synergy's offers need not cause it to earn greater profit; the effect on its profit could be neutral, or negative.
195. As noted above, Mr Balchin did not assess whether or not raising Synergy's prices would have been profitable for it. The ERA now, belatedly, seeks to fill this gap in its proof by mere assertion: that the impugned conduct must have been profitable, otherwise Synergy would not have engaged in it. But as Professor Knittel explained, one cannot simply assume that firms only increase prices where it is profitable do so.²⁰⁰ Moreover, the relationship between Synergy's input prices and the profit it earns from its Balancing Submission offers is complex. It depends not only on the effect of increasing input estimates on the offer curve PowrSym generates (which is of itself complex for the reasons submitted above²⁰¹), but a range of other matters that are difficult to predict with accuracy, such as the level of demand for electricity in any Trading Interval, and the way in which Synergy's competitors bid.
196. The ERA made, it may be presumed, a forensic decision not to seek to prove that Synergy was able to raise prices above competitive levels profitably. That forensic decision has left it without evidence that is required for it to establish that Synergy had market power.

Third - Whether Synergy's behaviour was related to market power

197. Even if the Board were to find that Synergy had market power (contrary to the submissions above), the ERA has not established that Synergy's behaviour was related to market power.
198. Insofar as the evidentiary record is concerned, to establish that Synergy's behaviour was related to market power, the ERA relies on the opinions of Mr Balchin. Relevantly, Mr Balchin's opinion is that Synergy's conduct related to market power

¹⁹⁹ Knittel report at [32].

²⁰⁰ Transcript, day 5, p 52, line 11 to p 53, line 8; Combined Transcript, p 434, line 15 to p 235, line 12.

²⁰¹ See [45]-[54] above.

because it involved offering prices in Balancing Submissions above Synergy's reasonable expectation of its SRMC.²⁰²

199. However, Mr Balchin was instructed to assume that Synergy offered prices in its Balancing Submissions that were above its reasonable expectation of its SRMC.²⁰³ And so the ERA's case concerning whether Synergy's conduct was related to market power requires that assumption to be made good.
200. It cannot be made good, for the reasons submitted in Section D above. The ERA cannot establish that increasing either or both Synergy's gas and/or start-up inputs caused:
- (a) all of Synergy's relevant offers to be above its reasonable expectation of its SRMC; or
 - (b) "*at least some prices*" in each of the relevant Trading Intervals that were above its reasonable expectation of its SRMC.
201. Further, even if the ERA could establish that Synergy offered "*at least some prices*" in each of the relevant Trading Intervals that were above its reasonable expectation of its SRMC, that behaviour need not relate to market power. As submitted above, market power is the ability to raise prices above competitive levels profitably (for a sustained period). For the making of an offer to be related to market power, it must therefore have been at least reasonably likely to cause prices (i.e. the Balancing Price) to increase. Otherwise, it would have had nothing to do with market power.
202. Finally, and distinctly, insofar as start-up costs are concerned, the ERA relies principally on Synergy's "methodology" for estimating start-up costs to establish that they were improperly inflated. As submitted above,²⁰⁴ that is not conduct that is related to market power. There is no evidence that adopting a particular methodology (reasonable or otherwise) for estimating start-up costs is, of itself, an exercise of market power.

²⁰² Balchin report at [38], [248].

²⁰³ Balchin report at [37]; Appendix E at [5.1(b)]-[5.1(d)].

²⁰⁴ See [112]-[115] above.

Date: 2 June 2021

Philip Solomon

Andrew Barraclough