

2016 Report to the Minister on the Effectiveness of the Electricity Generation and Retail Corporation Regulatory Scheme

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Economic Regulation Authority

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Executive summary

On 1 January 2014, the largest market participants in the wholesale supply and retail electricity markets, Verve Energy and Synergy, merged forming the Electricity Generation and Retail Corporation (**EGRC**). The merged entity trades as Synergy.

The merger opened up the possibility for Synergy to preference its own retail and generation arms at the expense of other market participants and limit the development of effective competition. To mitigate the adverse effects of the merger on competition in the Wholesale Electricity Market (**WEM**) the State Government implemented the EGRC Regulatory Scheme (**scheme**).

The scheme includes wholesaling arrangements. Synergy is not to discriminate between its retail business and competitors when offering wholesale supply. Synergy must ensure that a wholesale supply of electricity is not offered to its retail business unit on terms and conditions that are, having regard to all relevant circumstances, more favourable than the terms on which a wholesale supply of electricity is offered to retail competitors or generation competitors. Synergy must ensure that the financial interests of its retail business unit are not taken into account in determining the terms and conditions on which a wholesale supply of electricity is offered to retail competitors or generation competitors.¹ Synergy must also provide standard products to market participants through its wholesale supply business.

To provide transparency and accountability in Synergy's wholesale arrangements, the scheme includes:

- segregation of Synergy's functions into business units consisting of a Generation Business Unit, a Wholesale Business Unit, a Retail Business Unit and a shared service operations unit. Synergy is required to prepare segregated financial reports and establish transfer pricing mechanisms between its wholesale supply and retail businesses; and
- ring fencing, to restrict the flow of customer information between Synergy's segregated business units, which could otherwise be used to provide a competitive advantage to Synergy.

The scheme also includes audit and review provisions, whereby the Auditor General monitors compliance with the scheme and conducts annual audits. The Economic Regulation Authority (**ERA**) must investigate any non-compliance reported by the Auditor General and may impose civil penalties for non-compliance.

The ERA also reviews the effectiveness of the operation of the scheme at least annually and provides a report to the Minister for Energy, including any recommendations it has for amending the scheme. In undertaking its review, the ERA is required to consider the prevailing circumstances that exist in relation to the operation of the South West Interconnected System (**SWIS**) and any other matters that the ERA considers relevant.

¹ See regulation 22, page 16 of the *Electricity corporations (Electricity Generation and Retail Corporation) Regulations 2013*:

[https://www.slp.wa.gov.au/pco/prod/filestore.nsf/FileURL/mrdoc_25864.pdf/\\$FILE/Electricity%20Corporations%20\(Electricity%20Generation%20and%20Retail%20Corporation\)%20Regulations%202013%20-%20%5B00-b0-04%5D.pdf?OpenElement](https://www.slp.wa.gov.au/pco/prod/filestore.nsf/FileURL/mrdoc_25864.pdf/$FILE/Electricity%20Corporations%20(Electricity%20Generation%20and%20Retail%20Corporation)%20Regulations%202013%20-%20%5B00-b0-04%5D.pdf?OpenElement)

This is the ERA's third review and covers the operation of the scheme over the 2016 calendar year.

Review approach

The guiding principle for the review was that an effective scheme would not impede development of competitive outcomes in the wholesale and retail electricity markets. In a competitive market, rivalry between independent market participants would exert downward pressure on prices, new entrants would be free to enter the market, and incumbent participants could expand market share.

The ERA posed three questions that guided the review:

1. Based on market outcomes, is there any evidence to suggest that the merger has impeded competition in the retail and wholesale markets?
2. Are the wholesale arrangements effective in promoting competition, and if so, will they remain effective with the expected changes to the market?
3. Does the scheme provide sufficient audit and review measures to make anticompetitive behaviour obvious and transparent, and enable assessment of the efficacy of the scheme?

The main findings and recommendations from this review are summarised below and discussed in detail in sections 2 and 3 of the report. Section 4 presents further areas for improvement of the scheme.

Competition

In the SWIS, market customers and electricity generators buy and sell wholesale supplies of electricity in the day ahead Short Term Energy Market (**STEM**) and intra-day balancing market, and through bilateral contracting. In the electricity retail market, retailers supply energy to electricity consumers. The WEM Rules promote the economic efficiency of the markets through encouraging competition among generators and retailers and by facilitating the entry of new competitors.

Market participants use the STEM and bilateral contracting to manage their exposure to variation in the balancing market prices. Approximately 91 per cent of the energy supplied in the SWIS is covered via bilateral contracts.

During 2016, the volatility in STEM and balancing market prices increased substantially. This volatility is expected to increase somewhat due to changes to the inputs used for calculating the energy price caps in the STEM and balancing markets, leading to rises in the maximum energy price limits. With increasing volatility in the STEM and balancing markets, demand for bilateral contracts is expected to increase.

Competition in the contestable retail market has continued to develop, with Synergy losing market share to rivals. However, competition in the contestable retail market is predominantly occurring between six main participants that also own generation assets that have the capacity to self-hedge. There has been no growth in the market share of small retail market participants.

Analysis of market outcomes shows that Synergy remains the dominant supplier of electricity in the wholesale supply market. The demand for bilateral contracts facing

Synergy is highly inelastic (price-insensitive) allowing Synergy the opportunity to exercise market power. Synergy is expected to remain dominant in the wholesale supply market until at least the mid-2020s.

Wholesale arrangements

Synergy's Wholesale Business Unit (**WBU**) bilaterally contracts with the Retail Business Unit (**RBU**) through transfer pricing mechanisms. The WBU enters into transactions with other market participants through customised bilateral contracts (also accessible to the RBU) and the standard products regime. Although customised bilateral contracts are tailored to the needs of market participants, they are negotiated privately and their pricing is not transparent.

The standard products regime was included in the scheme to provide a price discovery mechanism and impose discipline on Synergy's forward energy sales. Synergy offers specific (and limited) volumes of energy, over varying short and medium terms, for sale to market participants and for purchase by Synergy. The scheme specifies that the standard product sell price must be a maximum of 20 per cent higher than the buy price.

As of 1 July 2017, Synergy implemented a new market based method for setting prices in the bilateral contracts market between the WBU and the RBU. Previously, the basis of the transfer price of electricity supplied by Synergy's wholesale unit to its retail unit was existing contracts and budgets from prior to the merger.

Synergy now employs an energy forward curve representing its forecast of future energy market prices to calculate a price for supply to the RBU and other generation and retail competitors. This same energy forward curve underlies calculation of standard product prices, and should underlie calculation of customised product prices, due to the non-discrimination requirements in the scheme.

Synergy sets prices in the STEM and balancing markets.² Synergy's expectation of future energy market prices underlies the calculation of bilateral contract prices. Efficient pricing of wholesale supplies of electricity in the WEM depends upon discipline placed on Synergy through:

- market power mitigation mechanisms in the STEM and balancing markets. Pricing discipline occurs through a requirement for pricing at short run marginal cost³, within specified energy price limits.
- reliable and efficient forecasting of future STEM and balancing market prices by Synergy; and
- constraint on Synergy's wholesale pricing of bilateral contracts. The buy-sell spread in the standard product regime is the main constraint on wholesale pricing for bilateral contracts.

The requirement for pricing at short run marginal cost places pricing discipline on all participants, including Synergy. If prices in the energy markets are not efficient, this will

² For example, an analysis of daily intervals spanning 6 AM to 11.30 PM for the period 31 March 2016 to 10 July 2017 indicates that Synergy cleared the balancing market about 84 per cent of the time.

³ For instance, a market participant must not offer prices in its balancing submission in excess of its reasonable expectation of the short run marginal cost of generating the electricity, when such behaviour relates to market power. See Wholesale Electricity Market Rules, clauses 6.6.3 (page 310) and 7A.2.17 (page 375). https://www.erawa.com.au/cproot/14681/2/Wholesale%20Electricity%20Market%20Rules_10.12.16.pdf

flow through to bilateral contracts that are used to hedge against energy price volatility. In a rapidly moving market, the effectiveness of this mechanism may be impeded by the extended timescale for monitoring, investigating and enforcing penalties for the misuse of market power. A significant lag may occur between behaviour that produces inefficient pricing and identification of that behaviour. Unduly high prices may persist in the market for an extended period.

The ERA is unable to scrutinise the model used to produce Synergy's forecast of future energy market prices and determine its efficiency and reliability. The requirement for the ERA to assess the model becomes less important if the spread between the buy and the sell price in the standard product regime is set at the right level, as the spread places pricing discipline on Synergy's sell prices.

The buy price anchors the sell price. If Synergy raises its sell price, and the spread between the buy and sell price is set at its maximum, it must also raise its buy price to maintain the maximum spread of 20 per cent. If the buy price is close to or above the expected price in the energy market, Synergy may be required to purchase energy at the raised price. A narrower maximum spread limits the level that the sell price can be raised before Synergy risks having to purchase more energy at a raised price.

There is some evidence to suggest that the maximum spread is already set too wide. For instance, of the limited number of standard product transactions undertaken since the scheme commenced, only five were buy transactions. No sell transaction occurred over the same period, suggesting that whilst the buy price was suitable for some sellers, the sell price was set too high for those wanting to purchase standard products.

If the standard product maximum buy-sell spread is wide or Synergy's energy forward curve is inefficient, this will result in standard product sell prices and bilateral contract prices being set high. The supply arm of Synergy's business could earn economic rent. The economic rent would be generated whilst Synergy is dominant in the wholesale market, and retailers (including the RBU) have limited options other than to trade with Synergy. This economic rent would persist even if the RBU incurs losses through competition in the contestable retail market.

The Auditor General's reports show that Synergy has complied with the scheme in all material respects and, as such, Synergy is not discriminating between buyers in the bilateral contracts market. An analysis of competition shows that the level of competition in the contestable retail market is improving. Nevertheless, Synergy is able to exercise market power by raising market prices if the standard product spread is too wide. The recommendations are to:

- **set a narrower spread between the buy and sell price in the standard product arrangements to ensure that pricing discipline is placed on Synergy's wholesale supply offerings;**
- **adopt a 10 per cent maximum buy-sell spread, which should be retained for a suitable period (e.g. 12 months) to allow the effect of the change on the level of trade in standard and customised products to be assessed;⁴ and**

⁴ See section 2.4.1 for discussion on the adoption of a 10 per cent buy-sell spread.

- **explore varied spreads for different products, with smaller spreads employed for more frequently traded products and wider spreads employed for illiquid products that have longer term uncertain forecasts.**

As part of implementing the new approach to setting contract prices in the market, Synergy proposed that the RBU and the WBU jointly determine transfer prices, based on their respective views of a forecast market price for electricity. The WBU also uses this forecast to set the price for standard products, which are products supplied to retail and generation competitors of Synergy.

In any contract, buyers and sellers negotiate based on the independent reservation prices at which they are willing to sell or buy products. Parties do not generally meet to develop a model of future energy market prices upon which they then derive the agreed contract price.

The involvement of the RBU and its ability to influence the wholesale contract prices set by the WBU may confound the ring fencing requirements and any assessment of whether consideration of the RBU's financial interests occurs when setting wholesale supply prices for other participants.

A range of transparency and monitoring issues undermine the effectiveness of the scheme. With the current arrangements, stakeholders may not be aware of the replacement transfer pricing method and its relationship to the market in which they trade. There is no requirement for Synergy to inform the ERA of any changes to the way that transfer prices (and hence, bilateral contract prices) are calculated to allow for regulatory scrutiny of these changes and their effect on the market. The ERA recommends that:

- **Synergy publishes its foundation transfer price and the method it uses for calculating this price.**

Only one standard product transaction occurred in the review period. The terms and conditions of contracting and/or the specification of the standard products may not match market expectations.

To become an approved counterparty to trade in standard products, Synergy requires the participant to provide its last two audited financial year statements. Synergy's Wholesale Energy Credit Policy requires formal credit assessments for all new approved counterparties, and credit assessments at least every 12 months thereafter. Synergy may also undertake credit assessments more frequently, at its discretion, where there are indications of change to a counterparty's financial health.

Other retailers consider that the credit requirements for trading in standard products are burdensome and intrusive. Such requirements may be disproportionate to the type of product that is contracted under a standard product arrangement, especially when compared to customised products that must be tailored to meet the individual requirements of retailers.

Retailers consider that the standard product specifications are too rigid. The standard product arrangements do not appear to adequately address the objectives of providing simple products that are an alternative to customised products,⁵ reducing barriers to entry

⁵ For example, the standard products do not include an alternative off-peak product, which are commonly requested as customised products.

for new entrants, and allowing market participants to rebalance their portfolios at the margins. The ERA recommends:

- **that Synergy relax its credit requirements so that they are proportionate to Synergy's exposure to the risk of counterparty default under the standard product regime; and**
- **review and amendment of the standard product specifications.**

The standard product arrangements contain asymmetric force majeure provisions. If Synergy or another party is the seller in a transaction, an event contributing to a minimum 20 per cent reduction in the generation of electricity from the seller's facilities triggers a force majeure event. However, if Synergy is the seller in a transaction, interruption to generation of only one of a list of specified plants triggers a force majeure event, and hence suspension of Synergy's obligations.⁶

The individual contribution of specified plants to the aggregate generation capacity of Synergy is limited to two to nine percent of the total capacity owned or controlled by Synergy. Given the size of Synergy's generation portfolio, the suspension clause is conservative in reducing the exposure of Synergy to force majeure events and transfers any risks that Synergy holds back to the counterparty. Stakeholders indicate that this may reduce the use of standard products as a risk management tool. The ERA recommends:

- **amendment to the force majeure clauses in the standard product arrangements to make them less conservative and symmetric.**

Segment financial reporting

Synergy is required to prepare separate statements of financial performance for each business unit, on a quarterly basis and in the annual financial report.

Synergy's financial reports do not separate gas and electricity or contestable and non-contestable financial results. The financial reports have varied in the information provided and the time periods covered, limiting the ability to scrutinise the financial results of each business unit's electricity activities over time.

Synergy receives a government subsidy for supply to the non-contestable market in which it has the monopoly. The scheme does not require separation of Synergy's financial reporting on the electricity activities of the monopoly and contestable sections within the RBU. This leads to concern amongst other market participants about the potential for cross-subsidisation and adverse effects on competition in the retail market. The ERA recommends that:

- **Synergy provides segmented financial reports to ensure transparency regarding how its revenues, costs, and profits are split across Synergy's different electricity activities.**

There will need to be an appropriate balance between transparency and the cost of preparing the information. Sensitive information about Synergy's commercial operations will need protection. This can be managed by including specification of a confidential and public version of the information.

⁶ These plants are specified in the scheme in the Standard Product Arrangements.

Table 1 provides a summary of this review's main findings, the ERA's recommendations, and their intended outcomes.

Table 1. Summary of main findings, the ERA's recommendations and their intended outcomes

Scheme element	Issue	Recommendation	Intended result
Wholesale arrangements			
Foundation transfer pricing mechanism	Efficient pricing of wholesale supplies relies on discipline placed on Synergy through the standard product buy-sell spread. There is some evidence that this spread is set too wide.	Set a narrower (10 per cent) maximum spread between the buy and sell price.	Places discipline on Synergy to set efficient prices in the bilateral contract market.
Foundation transfer pricing mechanism	Retail Business Unit involvement in setting the forecast market price for electricity, which is used in setting bilateral contract prices for competitors. No requirement for Synergy to inform the ERA of changes to the way that transfer prices are calculated.	Require that Synergy publish its foundation transfer price and the method it uses for calculating this price.	Provides transparency and allows for scrutiny of bilateral contract prices.
Standard products	Stakeholders consider that the credit requirements for standard products are burdensome and intrusive. Stakeholders are not engaging with Synergy for standard products. They consider the specifications are too rigid.	Relax the standard product credit requirements. Review and amend the standard product specifications.	Improve retailers' opportunities for contracting and provide a liquid standard product market, encouraging new entry and greater retail competition.

Scheme element	Issue	Recommendation	Intended result
Standard products	The force majeure provisions are asymmetric and conservative and transfer risk to Synergy's counterparty.	Amend the force majeure clauses in the standard product arrangements to make them less conservative and symmetric.	Limited impact on Synergy given its large portfolio. Standard products are able to be used for risk management by market participants with substantially smaller generation capacity.
Segment financial reporting arrangements			
Financial reporting	There is no requirement in the scheme for Synergy's financial reports to separate gas and electricity or contestable and non-contestable financial results. Synergy is the dominant supplier in the market and it is the only participant receiving a government subsidy for monopoly customers.	Synergy to produce annual consolidated segmented financial reports. Information to be treated as commercial in confidence.	Ensures transparency of how Synergy's revenues, costs, and profits are split across Synergy's different electricity segments. Addresses concerns of market participants about the potential for cross-subsidisation and adverse effects on competition in the retail market.

1. Introduction

Regulation 48 of the *Electricity Generation and Retail Corporation Regulations 2013* requires that the Economic Regulation Authority (**ERA**) conduct a review of the operation of the Electricity Generation and Retail Corporation regulatory scheme (**scheme**) to assess its effectiveness at least once per year.

The ERA must provide a report based on this review to the Minister for Energy (**Minister**) up to two months after the review is completed, and may include recommendations concerning amendment to the scheme. The Minister must lay a copy of the report before each House of Parliament no later than 21 sitting days after the day on which the Minister receives the report.

Consistent with the requirements of the scheme, the ERA has conducted a review of the effectiveness of the operation of the scheme for 2016 and has identified issues, and associated recommendations, outlined in this report.

In preparation for its 2016 review of the scheme, the ERA held a stakeholder workshop on 31 March 2017 and released a discussion paper seeking public submissions on 22 May 2017. Submissions received in response to the discussion paper are available on the ERA's website.⁷

Comments raised in both the submissions and the workshop were considered in forming the views set out in this report. Comments from stakeholders not specifically addressed in this report may be considered in future reports.

1.1. Background

The Western Australian Government amended the *Electricity Corporations Act 2005 (Act)* in late 2013 to effect the merger of the Electricity Retail Corporation (**Synergy**) and Electricity Generation Corporation (**Verve Energy**). The merged entity was renamed the Electricity Generation and Retail Corporation (**EGRC**), and began trading as Synergy on 1 January 2014.

Merging the generation and retail businesses potentially provided opportunities for Synergy to preference its own retail and generation arms at the expense of third parties, and thus to limit competition in the market. This could include both contracting on less favourable terms with third parties, and having access to commercial information not available to other retailers or generators.

Consequently, the Government implemented the EGRC regulatory scheme, which comprises:

- the Electricity Generation and Retail Corporation Regulations 2013 (**EGRC Regulations**);
- the Segregation and Transfer Pricing Guidelines 2013 (**Segregation and Transfer Pricing Guidelines**); and

⁷ Public submissions were received from Kleenheat, Synergy, Bluewaters Power and Alinta Energy. <https://www.erawa.com.au/electricity/wholesale-electricity-market/reviews/the-electricity-generation-and-retail-corporation-egrc-regulatory-scheme>

- the Electricity (Standard Products) Wholesale Arrangements 2014 (**Standard Product Arrangements**).

The scheme imposes requirements on Synergy including ring fencing, business segregation, transfer pricing, non-discriminatory wholesale electricity trading, and a standard product regime.

1.2. Overview of the scheme

The EGRC Regulations require that Synergy divide its operations into segments: the Generation Business Unit (**GBU**), Wholesale Business Unit (**WBU**), Retail Business Unit (**RBU**), shared service operations, and any additional segment(s) approved by the Minister. Synergy is required to prepare separate statements of financial performance for each business unit, on a quarterly basis and in an annual financial report.

Synergy must not discriminate between the RBU and retail or generation competitors on terms and conditions when offering wholesale supplies. It is also required to offer specified standard wholesale products to both buy and sell energy. The Standard Product Arrangements specify the minimum quantities of standard products Synergy must make available for sale and purchase, and the maximum percentage spread between the buy and sell price.

The scheme includes compliance and review provisions, which are set out in the EGRC Regulations. The Auditor General is required to monitor compliance with the scheme and conduct annual audits to assess whether Synergy has complied with the requirements specified in the scheme.

The ERA must investigate any non-compliance reported by the Auditor General.⁸ Additionally, regulation 48(1) of the EGRC Regulations requires that the ERA review the operation of the scheme to assess its effectiveness at least once each year.

A more detailed description of the scheme, including the requirements in the EGRC Regulations, is set out in Appendix 1.

1.3. Review requirements

The EGRC Regulations require that, in conducting its review, the ERA must have regard to:

- the prevailing circumstances that exist in relation to the operation of the South West Interconnected System (**SWIS**); and
- any other matters that the ERA considers relevant.

The ERA must give the Minister a report based on its review of the scheme up to two months after the review is completed. The report may include any recommendations the ERA has for amending the scheme.

The Minister must provide a copy of the report to each House of Parliament no later than 21 sitting days after the day on which the Minister receives the report. The ERA may

⁸ Depending on the outcome of that investigation and the nature of the non-compliance, the ERA may impose a civil penalty. Non-compliance with certain obligations under this regulatory regime will incur a civil penalty of up to \$100,000, with additional daily penalties of up to \$20,000 for continuing breaches.

request that the Minister delete a matter that is of a commercially sensitive nature from the report laid before Parliament.

1.4. Approach for this review

This is the third review of the effectiveness of the operation of the scheme and covers the 2016 calendar year. The prevailing circumstances that exist in relation to the operation of the SWIS and other relevant matters include:

- Synergy is a net seller of electricity. Its combined generation capability and energy purchases are greater than its own customer requirements. Excess electricity spills into the STEM and balancing markets;
- a State general election was held on 11 March 2017, leading to a new Government and a delay in determining the future of the Electricity Market Review reforms initiated by the previous government;
- the increasing volatility in energy market prices; and
- the Wholesale Electricity Market (**WEM**) objectives.⁹

The ERA considers that the objective of the scheme is to mitigate the potential for Synergy to exploit its market position as a dominant, vertically integrated electricity business with a captive retail market, for the purposes of engaging in anticompetitive conduct, to the detriment of competing electricity businesses and electricity customers. An effective scheme would produce outcomes in the market that are similar to the outcomes observed in an effectively competitive market.

The ERA adopted a top-down approach to scrutinise the overarching impacts of the merger on competition in the bilateral contracts and retail markets. It assessed the effectiveness of the scheme in addressing any likely adverse implications of the merger.

The ERA posed three questions that guided the review:

1. Based on market outcomes, is there any evidence to suggest that the merger has impeded competition in the retail and wholesale markets?
2. Are the wholesale arrangements effective in promoting competition, and if so, will they remain effective with the expected changes to the market?
3. Does the scheme provide sufficient audit and review measures to make anticompetitive behaviour obvious and transparent, and enable assessment of the efficacy of the scheme?

To assess competition, a general framework for competition review (i.e. a structure, conduct and performance paradigm)¹⁰ was employed to review a range of interrelated indicators of competition in the retail and wholesale supply markets. These included customer activity, independent rivalry, customer outcomes, market outcomes, and barriers to entry, exit or

⁹ For market objectives, refer to market rule 1.2, p.26,

https://www.erawa.com.au/cproot/14681/2/Wholesale%20Electricity%20Market%20Rules_10.12.16.pdf

¹⁰ This approach is similar to that adopted by the Australian Energy Market Commissions in reviewing energy retail competition nationally, refer to the 2014 Retail Competition Review, Approach Paper, 17 January 2014, Sydney, <http://www.aemc.gov.au/getattachment/94c068d8-3d8e-49bf-a53a-e976cf942d85/Approach-Paper.aspx>

expansion. Appendix 2 presents the detailed findings of the market competition assessments.

Elements of the scheme intended to mitigate the potential for anti-competitive behaviour were considered. In particular, the ERA considered the arrangements for:

- transfer pricing and wholesale supply;
- ring fencing;
- segment financial reporting; and
- audit and review.

The following sections provide a summary of the main findings for each arrangement under the scheme, and its effectiveness in mitigating anticompetitive behaviour.

Where relevant, competition analyses, data provided by Synergy, stakeholder responses to discussion papers and workshops, confidential interviews and experience and evidence from other jurisdictions informed this review.

2. Wholesale arrangements

In the WEM trade occurs through the balancing market. The bilateral contracts market is the principal mechanism for contracting around outcomes in the balancing market to mitigate and manage price risks.

The following section provides an overview of the four main bilateral contracting arrangements required under the scheme and the constraints imposed on these arrangements to ensure non-discriminatory wholesale electricity trading.

2.1. Bilateral contracting arrangements

The scheme sets out requirements for wholesale supply by the WBU to the RBU. It differentiates between:

- wholesale supplies from the WBU to the RBU for meeting foundation customer load (i.e. customers who do not have a new contestable customer arrangement).¹¹ The arrangements between the WBU and the RBU for wholesale supply for foundation customers are set out in the foundation transfer price mechanism; and
- wholesale supplies from the WBU to the RBU for additional customer load (i.e. customers who do have a new contestable customer arrangement).¹² The arrangements between the WBU and the RBU for wholesale supply for new load customers are set out in the additional transfer price mechanism.

Third party generators and retailers can obtain wholesale supplies from the WBU as customised products, which are tailored to suit a third party's needs and are negotiated between the WBU and the third party. Arrangements between the WBU and third parties are set out in the Electricity Bilateral Trade Agreement.

Third parties can also obtain standard products from the WBU, which are fixed quantities of energy Synergy must advertise for sale and purchase at published prices. The standard product arrangements are set out in the Bilateral Trade Agreement for Electricity (Standard Products).

The RBU is able to procure customised products from the WBU. However, the scheme prohibits the RBU or any subsidiary from procuring wholesale supplies through the standard product arrangements.¹³

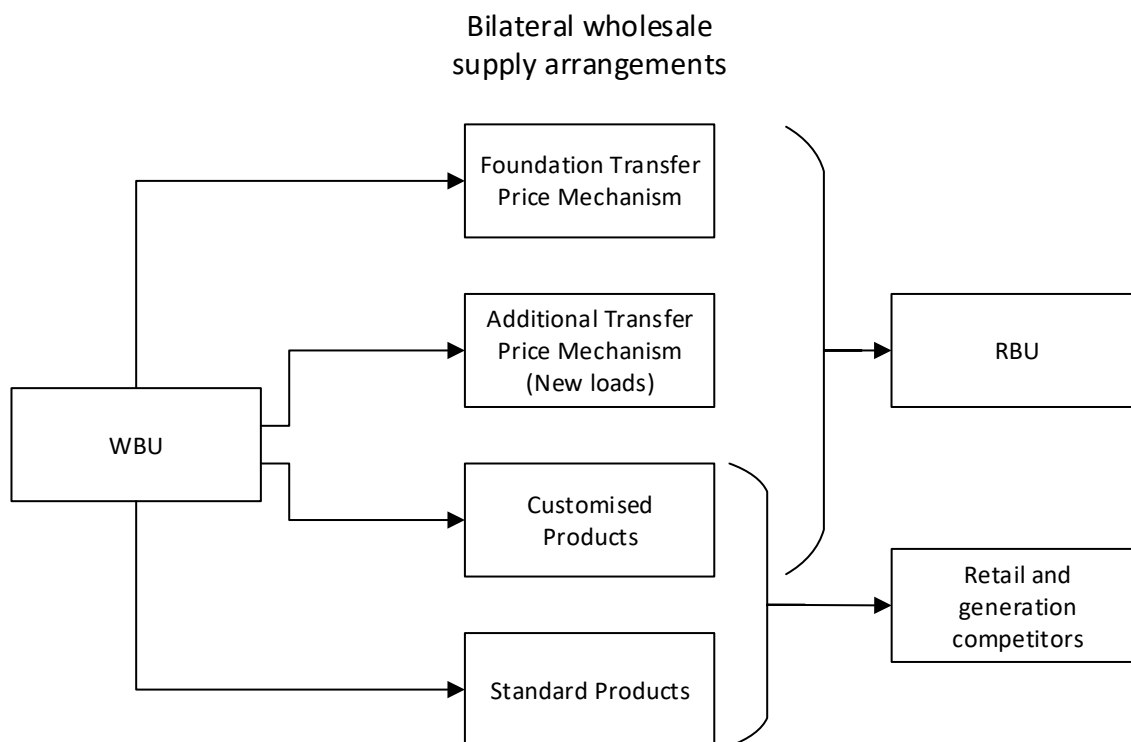
¹¹ An arrangement is not a new contestable customer arrangement if the arrangement became legally binding on Synergy after the merger, as a result of the contestable customer accepting, on or before 31 March 2014 (without amendment), an offer for the retail supply of electricity that was made by Synergy to the contestable customer before the merger time. Additionally, an arrangement is not a new contestable customer arrangement if the arrangement is for the supply of electricity to the contestable customer at a charge determined in accordance with the *Energy Operators (Electricity Generation and Retail Corporation) (Charges) By-laws 2006*.

¹² A new contestable customer arrangement is a new or amended agreement between Synergy and a contestable customer imposing a legal obligation on Synergy to supply electricity to the contestable customer on a retail basis, that became legally binding on Synergy after the merger.

¹³ See Standard Product Arrangement 2.2 (b) [https://www.slp.wa.gov.au/gazette/gazette.nsf/searchgazette/E81FAE2E67051AB248257CDA0025714A/\\$file/gg073.pdf](https://www.slp.wa.gov.au/gazette/gazette.nsf/searchgazette/E81FAE2E67051AB248257CDA0025714A/$file/gg073.pdf)

Figure 1 provides an overview of the main bilateral contracting arrangements for wholesale supply in the scheme.

Figure 1. The main contractual wholesale supply arrangements in the scheme



The scheme includes penalty provisions to ensure that Synergy does not discriminate between the RBU and its competitors when offering a wholesale supply of electricity. The EGRC Regulations, in particular, include non-discrimination requirements in which Synergy is required to ensure that:¹⁴

- a wholesale supply of electricity is not offered to the RBU on terms and conditions that are, having regard to all relevant circumstances, more favourable than the terms on which it is offered to retail or generation competitors; and
- the financial interests of the RBU are not considered in determining the terms and conditions on which a wholesale supply of electricity is offered to retail or generation competitors.¹⁵

Thus, the terms and conditions of a wholesale supply of electricity should not be advantageous to the RBU for supplying its foundation and additional load customers (taking into account all relevant considerations), as compared to supply to a competitor under a customised product arrangement for a product with the same specifications.

The regulations also require that Synergy prepare, maintain and comply with a written policy documenting standard processes for wholesale electricity supply requests from the RBU and its retail and generation competitors. These standard processes must not, having

¹⁴ See EGRC Regulations, regulation 22.

¹⁵ In relation to this, the financial position of the RBU is to be taken to be the financial position of the Synergy, when assessing the ability of the RBU to make payments for wholesale supply, and the standard processes must not be more favourable to the RBU than to a retail or generation competitor.

regard to all circumstances, be more favourable to the RBU than Synergy's generation and retail competitors.¹⁶

To address this, Synergy developed its Wholesale Electricity Supply Policy¹⁷ that cites the non-discrimination requirements of the regulations. The policy constrains how Synergy administers customised product requests for quotes to ensure Synergy does not discriminate between the RBU and its competitors. That is, when determining pricing and other terms and conditions for a request for quote, the WBU must:

- apply a consistent pricing approach between requests for quotes of like or similar nature, including taking into account all relevant circumstances of those requests for quotes, including but not limited to, volume, period and terms and conditions;
- take into account relevant internal WBU circumstances including but not limited to, contracted position, plant and fuel availability and available generating capacity;
- take into account market conditions or any other conditions considered to be relevant; and
- maintain records of the pricing approach adopted together with any underlying assumptions.

The Standard Product Arrangements also require that Synergy comply with the non-discrimination requirements in the regulations. Additionally, standard product prices are constrained by the requirement that the sell price (i.e. the price that Synergy is willing to sell a standard product to a competitor) must be a maximum of 20 per cent higher than the buy price (i.e. the price at which Synergy is obliged to purchase a standard product from a competitor).¹⁸

Thus, under the non-discrimination obligations, the scheme requires that (taking into account all relevant considerations) the terms and conditions of a customised wholesale supply of electricity are not advantageous to the RBU, as compared to a supply with the same specifications offered to a competitor under the Standard Product Arrangements.

2.2. Energy market arrangements

All participants can obtain wholesale supplies from the energy markets. The RBU does not trade directly in the energy markets. However, it can access supply at balancing market prices through its Supply Balancing Cost Allocation Arrangement with the WBU, which is the Synergy business unit responsible for trading in the energy market.¹⁹

Prices in the energy markets are constrained by requirements in the Wholesale Electricity Market rules. In the balancing market 'a Market Participant must not, for any Trading Interval, offer prices in its Balancing Submission in excess of the Market Participant's

¹⁶ See regulation 24.

¹⁷ This policy is available from: <https://www.synergy.net.au/About-us/Who-we-are/What-we-do/Wholesale-Business-Unit>

¹⁸ See Standard Product Arrangements 5.2 (a) and (e).

¹⁹ Through this arrangement, the RBU can under-nominate the quantity that it requires to meet its load (i.e. nominate a smaller quantity through bilateral mechanisms that are subject to transfer pricing than it actually requires). The under-nominated quantity is then provided by the WBU to the RBU through the supply balancing arrangement, at balancing market prices.

reasonable expectation of the short run marginal cost of generating the relevant electricity by the Balancing Facility, when such behaviour relates to market power'.²⁰

Similarly, in the STEM 'a Market Generator must not, for any Trading Interval, offer prices within its Portfolio Supply Curve that do not reflect the Market Generator's reasonable expectation of the short run marginal cost of generating the relevant electricity when such behaviour relates to market power'.²¹

Prices in the energy markets are also constrained by the energy price limits, which include the maximum STEM price (currently \$240/MWh), the alternative maximum STEM price²², and the minimum STEM price (-\$1,000/MWh).²³

2.3. Analysis of wholesale supply arrangements

2.3.1. The foundation transfer price mechanism

The scheme requires that the transfer price for wholesale supplies from the WBU to the RBU for customers who are non-contestable²⁴ or contestable customers who are foundation customers²⁵ is set at the foundation transfer price.

The EGRC Regulations²⁶ require that Synergy prepare the foundation transfer price mechanism²⁷ that sets out the means by which the foundation transfer price is to be determined and provide it to the Minister. Initially, at the time of the merger, the *Segregation and Transfer Pricing Guidelines 2013* mandated the means by which the foundation transfer price was to be calculated. For each trading interval, the cost of electricity was to be based on:

- existing contracts for the acquisition of electricity by the Electricity Retail Corporation (taking account of the terms and conditions of those contracts, including contracts with the Electricity Generation Corporation); and
- information contained in the Mid-Year Review prepared by the Electricity Retail Corporation in respect of the financial years ending in each of the calendar years 2013 to 2017.²⁸

The foundation transfer price mechanism came into force when it was provided to the Minister and was to remain in force until 30 June 2017 or a later day approved in writing by

²⁰ See market rule 7A.2.17.

<https://www.erawa.com.au/cproot/18049/2/Wholesale%20Electricity%20Market%20Rules%201%20July%202017.pdf>

²¹ See market rule 6.6.3.

²² The maximum price depends on whether gas or liquid fuelled generation is required to meet the electricity demand. The Alternative Maximum STEM Price is applied when liquid-fuelled generation is required. The Alternative Maximum STEM Price changes from month to month based on the price of liquid fuel.

²³ See market rule 6.20.

²⁴ That is, residents and small businesses.

²⁵ Foundation customers are customers that Synergy had prior to the merger and that do not have a new contestable customer arrangement implemented after the merger.

²⁶ Subdivision 3.

²⁷ Otherwise referred to as the Internal Synergy Wholesale Arrangement.

²⁸ The *Segregation and Transfer Pricing Guidelines 2013* do not identify what information from the Mid-Year Review was used, how it was used or how the prices were calculated.

the Minister. As set out in the EGRC Regulations, at least six months prior to the expiry of the original foundation transfer price mechanism, Synergy was required to prepare a replacement foundation transfer price mechanism and provide it to the Minister.²⁹

2.3.2. The 2017 replacement foundation transfer price mechanism

Synergy prepared a replacement foundation transfer price mechanism and provided it to the Minister six months prior to the expiry of the original foundation transfer price mechanism. Synergy proposed deletion of the original clauses in the *Segregation and Transfer Pricing Guidelines 2013* providing the means for calculating the foundation transfer price, and their replacement with two key principles under which the new (replacement) foundation transfer price must be determined. These were transparency and a price reflective of the market.

Synergy proposed that the foundation transfer price mechanism should provide for a foundation transfer price for electricity (in \$/MWh) in a trading interval that:

- is determined in a transparent manner between the retail business unit and the wholesale business unit;
- reflects the retail business unit and wholesale business unit's view of a forecast market price for electricity (such forecast also being used by the wholesale business unit to determine the price for Standard Products).³⁰

The EGRC Regulations do not require updating the *Segregation and Transfer Pricing Guidelines 2013* to reflect the arrangements set out in a replacement foundation transfer pricing mechanism. Consistent with this, the *Segregation and Transfer Pricing Guidelines 2013*, published on 30 December 2013, refer to the original mandated means of calculation of the foundation transfer price.

The new arrangements set out in the replacement foundation transfer price mechanism commenced on 1 July 2017 and expire on 1 July 2020. However, the arrangements set out in schedule 2 of the replacement foundation transfer price mechanism related to determining and notifying the RBU of the energy price for the first financial year in the term became effective on 31 March 2017.³¹

²⁹ Clause 3.5 of the original and replacement foundation transfer pricing mechanism require that the WBU and the RBU meet at least 9 months prior to expiry in good faith with a view to negotiating and agreeing a replacement foundation transfer pricing mechanism.

³⁰ In view of this, Synergy also proposed that a new definition be added to the *Segregation and Transfer Pricing Guidelines 2013* noting that 'Standard Products' means the products created under the *Electricity (Standard Products) Wholesale Arrangements 2014* approved by the Minister under the EGRC Regulations.

³¹ Section 4.1 of the Internal Synergy Wholesale Arrangement states that 'The Business Units acknowledge that the pricing mechanism for the wholesale supply of electrical energy under this ISWA set out in Schedule 2 constitutes the Foundation Transfer Price for the purposes of regulation 9(2) of the EGRC Regulations.' Reference to clause 2.2e of the *Segregation and Transfer Pricing Guidelines 2013*, providing the means for calculating the foundation transfer price, has been removed from the foundation transfer price mechanism. ISWA is an abbreviation of the term 'internal Synergy wholesale arrangement.'

Under section 6.4 of the replacement foundation transfer price mechanism, the energy price, which comprises an on-peak and an off-peak price,³² is to be determined by applying an energy forward curve.³³ The energy forward curve is Synergy's forecast of the future market energy price for each hour in each trading day in the period covered by the curve. It is used by Synergy to derive the flat sell standard product price on the last business day occurring in the month that is four months before the start of each quarter.

Synergy uses the same underlying forecast (and hence the same forward price curve) for both the replacement foundation transfer price mechanism and the standard products. For example, for a term beginning on 30 June 2017, the same energy forward curve will be used to derive the energy price and the flat sell standard products displayed on the standard product website on 31 March 2017.³⁴

To calculate the applicable peak price³⁵ the hourly forward energy price represented on the applicable energy forward curve is multiplied by the forecast load for the foundation customers in the relevant on-peak trading interval. The product for each trading interval is then added together. This amount is then divided by the total forecast load for the foundation customers in all on-peak trading intervals occurring in the relevant month. This gives an average price for the month but gives more weight to the price in the on-peak trading intervals where the load is higher. A similar approach is then used to determine the off-peak price.

2.3.3. Relationship to other bilateral contract prices

The foundation transfer price mechanism specifies that Synergy will employ the energy forward curve to calculate the additional transfer price in the same way that it calculates its foundation transfer price.³⁶ Therefore, the energy forward curve is used in the calculation of the standard product price, the foundation transfer price, and the additional transfer price.

The foundation transfer price mechanism does not explicitly note the use of the energy forward curve in setting customised product prices. Nevertheless, given the non-discrimination requirements, the energy forward curve must also be used to calculate the customised product prices.

Increases and decreases in the energy forward curve based on expectations of future market prices should result in increases and decreases in all bilateral contract prices.

³² An on-peak price is the energy price for an on-peak trading interval, which occurs between 8:00hrs and 22:00hrs on any day that is not a Saturday or Sunday. An off-peak price is the energy price for an off-peak trading interval, which is a trading interval that is not an on-peak trading interval.

³³ See Schedule 2 of the foundation transfer price mechanism.

³⁴ March is the last Business day of the month that is four months before the start of the quarter.

³⁵ For each on-peak trading interval in a month in the term (i.e. the period covered by the ISWA) or remainder of the term, as applicable.

³⁶ Section 6(5) states that the energy price is, for the 'purposes of regulation 9(3)', the 'transfer price for the wholesale supply of electricity and is also the foundation transfer price.' Notably, regulation 9(3) relates specifically to a supply transaction between the WBU and the RBU for the purposes of a retail supply of electricity to a customer under a 'new contestable customer arrangement,' not to a foundation customer. Part 4 of the *Segregation and Transfer Pricing Guidelines 2013* applies to any written arrangements referred to in regulation 9(3) as additional transfer price mechanisms.

2.3.4. Advantage of the new approach for calculation of the foundation transfer price

In its 2014 review of the scheme, the ERA noted that the wholesale prices for Synergy's retail customers appeared based on the Revised Vesting Contract, which was the contract in place between Synergy and Verve Energy prior to the merger. The ERA had previously found that this raised Synergy's wholesale energy costs above efficient levels.³⁷

The ERA was concerned that if this was the case, it would lead to the RBU's costs being overstated and the Tariff Adjustment Payment (which covers the difference between Synergy's efficient costs and the revenue it collects from customers) being higher than it otherwise needed to be.³⁸ It proposed that a review of the foundation transfer price mechanism should be undertaken as soon as possible to ensure the RBU's costs were based on efficient wholesale costs.

The benefit of the change in approach to calculation of the foundation transfer price is that the new approach does not appear to include the Revised Vesting Contract. Instead, the new approach attempts to tie wholesale supply prices in the contract market to expected market prices. The use of competitive market prices to set wholesale contract prices is a desirable outcome.

2.3.5. Limitations of the new approach for calculation of the foundation transfer price

With the changes to the foundation transfer pricing mechanism, Synergy uses its expectation of future energy market prices to set bilateral contract prices. Synergy sets the price most of the time in the energy markets. Efficient pricing of wholesale supplies of electricity in the WEM will thus depend upon discipline placed on Synergy through:

- pricing at short run marginal cost in the STEM and balancing market;
- reliable and valid forecasting of future market prices by Synergy; and
- constraints on Synergy's wholesale pricing in the bilateral contract market.

The short run marginal cost mitigation mechanism³⁹ places pricing discipline on all participants, including Synergy. If prices in the energy markets are not efficient, this will flow through to bilateral contracts that are used to hedge against energy price volatility. The effectiveness of this mechanism may be undermined by the long timescale for investigation and enforcement compared to a rapidly moving market. A significant lag may occur between behaviour that produces unduly high balancing prices and identification of that behaviour. High prices may persist in the market for extended periods.

No information is available to show how Synergy produces its energy forward curve for deriving the standard product flat sell prices and the foundation and additional transfer

³⁷ Economic Regulation Authority, Synergy's Costs and Electricity Tariffs Final Report, 4 July 2012, p. 16. <https://www.erawa.com.au/cproot/10639/2/20120704%20Synergys%20Costs%20and%20Electricity%20Tariffs%20-%20Final%20Report.PDF>

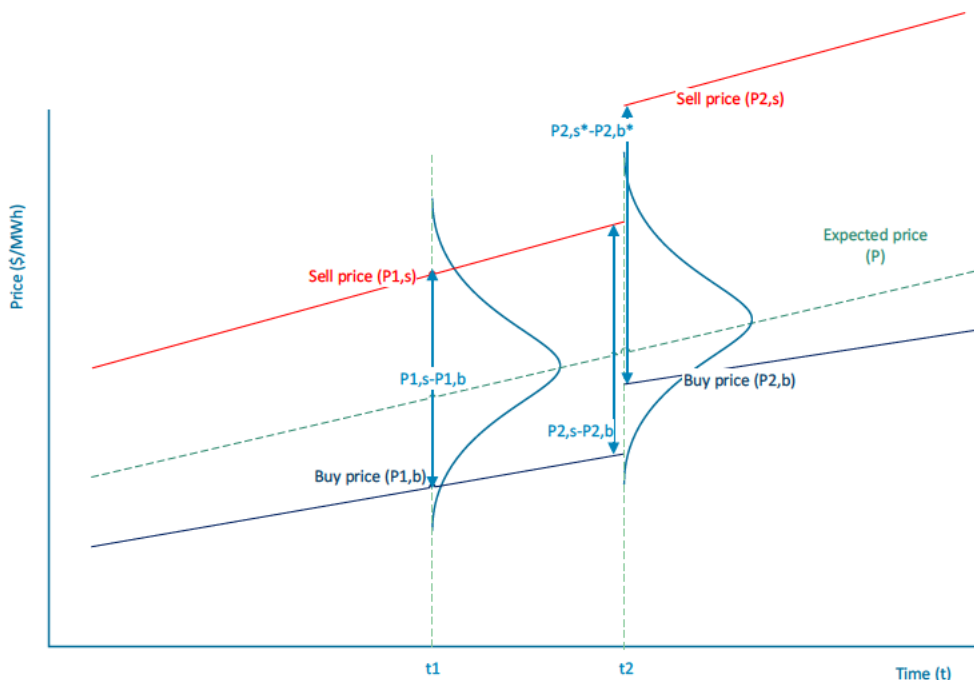
³⁸ The cost of supplying electricity to non-contestable customers is greater than what non-contestable customers are charged and it is therefore subsidized by the Government through the Tariff Adjustment Payment.

³⁹ Refer to Wholesale Electricity Market rules 6.6.3 (page 310) and 7A.2.17 (page 375). https://www.erawa.com.au/cproot/14681/2/Wholesale%20Electricity%20Market%20Rules_10.12.16.pdf

prices. The ERA is unable to review the model used to produce Synergy’s forecast of future energy market prices. The requirement for the ERA to assess the reliability and validity of Synergy’s expected prices would be less important if the spread between the buy and the sell price in the Standard Product Arrangements is set at the right level.

The spread between the buy and the sell price in the Standard Product Arrangements is the main constraint on wholesale pricing in the bilateral contract market. The standard product sell price must be a maximum of 20 per cent higher than the buy price. The stylised diagram in Figure 2 illustrates the relationship between buy, sell, and expected price.

Figure 2. Buy–sell spread and relationship to expected price*



*Note: $P_{t,b}$ is the buy price for a standard product at time t ; $P_{t,s}$ is the sell price for a standard product. In the diagram, Sell price ($P_{1,s}$) is increased to Sell price ($P_{2,s}$) at t_2 . At the same time, to maintain a spread of 20 per cent, Buy price ($P_{1,b}$) must also increase to Buy price ($P_{2,b}$). There is sufficient spread between Sell price ($P_{1,s}$) and Buy price ($P_{1,b}$) in the diagram, that Sell price ($P_{1,s}$) can be raised to Sell price ($P_{2,s}$), without Buy price ($P_{2,b}$) reaching the expected market price (P) at which Synergy may be obligated to purchase energy. A narrower spread would limit the level that Sell price ($P_{2,s}$) can be raised, before Buy price ($P_{2,b}$) reaches the expected market price (P).⁴⁰

The buy price anchors the sell price by ensuring that if Synergy puts its sell price up it must also put its buy price up. If the buy price is close to or above the expected price in the energy market, Synergy may be forced to purchase energy from others when it already has surplus energy. A narrower spread would limit the level that the sell price can be raised before Synergy risks having to purchase more energy.

There is evidence to suggest that the spread may be set too high. For example, of the limited number of standard product transactions undertaken, only five were buy

⁴⁰ Note that spreads at times t_1 and t_2 are equal, i.e. $\frac{P_{1,s} - P_{1,b}}{P_{1,s}} = \frac{P_{2,s} - P_{2,b}}{P_{2,s}} = \frac{P_{2,s^*} - P_{2,b^*}}{P_{2,s^*}} = 0.2$. However, the absolute difference between buy and sell prices increases as prices become larger. For instance, if the sell price is \$100/MWh, the corresponding buy price is \$80/MWh, and the absolute difference based on a 20 per cent spread is \$20/MWh. In contrast, if the sell price is \$150/MWh, the corresponding buy price is \$120/MWh, and the absolute difference based on a 20 per cent spread is \$30/MWh.

transactions. These transactions occurred in the first part of 2015 and no sell transactions occurred at this time. This suggests that whilst the buy price was attractive for sellers, the sell price was set too high for those wanting to purchase contracts.

Feedback from other retailers supports this conclusion. For example, in its submission to the 2015 EGRC review Amanda Energy noted that Synergy's standard products have been ineffectual due to prices being set too high to win a competitive tender or to offer a reasonable hedge for an electricity portfolio. Similarly, in its submission to the 2016 EGRC review, Kleenheat considered that the standard products regime is ineffective as a competitively priced option for procurement of wholesale energy.

Even when there was increased variability in pricing in the market in the second half of 2016, only one standard product transaction occurred over this period, again suggesting that the sell price was set too high. The number of customised product contracts increased at this time, however, only five larger participants (retailers and generators) entered into contracts. One small retailer sought quotes for customised supply but did not enter into a customised contract.

Synergy is dominant in the bilateral supply market. Other market participants have a limited ability to apply competitive pressure to Synergy to ensure that it sets an efficient price. If market participants require a bilateral contract or hedge on balancing market prices beyond their own generation, the predominant supplier of bilateral contracts is Synergy.

From mid-2016, the STEM and balancing markets showed an increase in average prices and volatility that was unprecedented since the merger (see Appendix 2, sections A2.3.3 and A2.2.3). The energy price limit currently caps energy market prices at \$240/MWh. However, due to a change in method, the energy price cap is expected to increase during 2017, which could lead to increased volatility in energy market prices. Along with the increased volatility, demand for hedge contracts, including standard products, is expected to increase.

If the standard product spread is too wide and the WBU is able to set its sell price for wholesale supplies at a high and inefficient level, Synergy can earn economic rent. In the retail market, all retailers will receive the same high-level price because of the non-discrimination requirements. The RBU must compete in the contestable market with all other retailers who are supplied by the WBU at the same high-level price. The economic rent would persist even if the RBU has a reduced gross margin or incurs losses through competition in the contestable market. The RBU's reduced gross margin will be offset by gains by the WBU from the price mark-up. The WBU will also collect a price mark up from the rest of the market participants contracting for supply with Synergy. If contract prices are set above efficient levels, and consumer demand is insensitive to changes in price, consumers will pay for the inefficient pricing in the long term.

During 2016, in the contestable market, the WBU supplied more energy to other market participants than it supplied to the RBU. If the standard product spread was too wide, and hence Synergy was able to mark-up its prices, it would have had the opportunity to exercise market power in the contractual wholesale supply market and to collect a net benefit.

The Auditor General's reports show that Synergy has complied with the scheme in all material respects, and an analysis of competition shows that the level of competition in the contestable retail market is improving (see Appendix 2, section A2.2). Nevertheless, if the standard product spread is not set correctly, Synergy is able to exercise market power.

The ERA therefore recommends setting a narrower spread between the buy and sell price in the standard product arrangements to ensure that pricing discipline is placed on Synergy's wholesale supply offerings.

Summary:

- If prices in the energy markets are not efficient, this will flow through to bilateral contracts that are used to hedge against energy price volatility. Efficient pricing of wholesale supplies depends on the SRMC rule.
- Of particular concern with the SRMC rule is the long timescale of enforcement compared to a rapidly moving market. A significant lag between non-compliant behaviour occurring and identification of that behaviour can occur.
- The foundation transfer price mechanism has been replaced and includes a new method of calculation of the foundation transfer price. This method will also be employed to set the additional transfer price.
- The replacement foundation transfer price mechanism employs the same energy forward curve used to calculate the standard product price to determine the foundation transfer price. The energy forward curve is Synergy's forecast of the future energy market price for each hour in each trading day in the period covered by the curve.
- A benefit of the replacement foundation transfer price mechanism is that wholesale supply prices in the contract market are now a function of expected market prices. However, the replacement foundation transfer price mechanism does not describe how the energy forward curve is calculated, which impedes scrutiny of the efficiency and reliability of the method.
- The WBU must not advantage the RBU in comparison to its competitors on the terms and conditions of a wholesale supply of electricity. Thus, any increase in pricing that occurs through one bilateral contractual arrangement must be offered through other bilateral contractual arrangements.
- The spread in the standard product market is an important mechanism for ensuring that Synergy sets efficient prices. If Synergy sets its buy price too high it will be obligated to purchase energy at raised prices.
- The lack of trading in standard products, during a period of increased price volatility, suggests that the sell prices are set too high.
- If the standard product spread is too wide or Synergy's forward curve is inefficient, this will result in the WBU setting its sell price for wholesale supplies at a high and inefficient level, and Synergy will earn economic rent. The economic rent would be generated whilst

Synergy is dominant in the wholesale market, and retailers, including the RBU, have limited options other than to trade with Synergy. This economic rent would persist even if the RBU incurs losses through competition in the contestable retail market.

- Depending on the level of competition and price elasticity of energy demand in the retail market, if prices in the contract markets are set above efficient levels, this may flow through to consumers, who will pay too much for their electricity.

Recommendation:

- The ERA recommends setting a narrower spread between the buy and sell price in the standard product arrangements to ensure that pricing discipline is placed on Synergy's wholesale supply offerings.

2.3.6. Compliance and transparency in pricing wholesale supplies

As part of implementing the 2017 replacement foundation transfer mechanism, Synergy proposed that the retail business unit and the wholesale business unit jointly determine the foundation transfer price for electricity, based on their respective views of a forecast market price for electricity (see section 3.1.3.2 above). The wholesale business unit would also use this forecast to set the price for standard products, which are available to Synergy's retail and generation competitors.

Prior to the merger, the Electricity Retail Corporation had input to the calculated foundation transfer price through the requirement for the price to be partly based on information contained in the Mid-Year Review that was prepared by the Electricity Retail Corporation for the period 2013 to 2017.

The scheme prohibits Synergy from discriminating between its RBU and competitors when offering wholesale supplies; and from taking into account the financial interests of the RBU in determining the terms and conditions on which a wholesale supply of electricity is offered to retail or generation competitors. The WBU is required to treat the RBU as it would treat any other independent retailer.

It is not clear whether any formal arrangements have been put in place to constrain the RBU's behaviour when providing its view of forecast market prices for electricity. The involvement of the RBU and its ability to influence the wholesale contract prices set by the WBU may confound an assessment of whether the RBU's financial interests are taken into account when setting wholesale supply prices. It may also represent a significant departure from the original intent of the scheme, which was to ensure that the RBU is not advantaged in the retail market in comparison to its competitors.

The *Segregation and Transfer Pricing Guidelines 2013* (and consequently the means by which the foundation transfer price was initially to be calculated) are publicly available, providing information on how the transfer price was originally calculated.

The EGRC Regulations set out the provisions for changing the foundation transfer price mechanism over time and are also publicly available, alerting market participants to the three-year replacement cycle for this mechanism. However, Synergy may revise the foundation transfer price mechanism at any time to make a change of a minor or technical nature.⁴¹ Changes of a minor or a technical nature are not defined within the EGRC Regulations, and there are no requirements for such a revision to comply with each applicable provision or to be published.

The EGRC Regulations do not contain a requirement that Synergy must notify the ERA or the Auditor General of whether they have revised the foundation transfer price mechanism and/or of what changes (whether revisions or replacement) are made to the mechanism. The ERA conducts an annual calendar year review, and the Auditor General audits compliance with the wholesale supply arrangements on a financial year basis. A lag may therefore occur between changes to the foundation transfer price mechanism and regulatory scrutiny of the changes to how the foundation transfer price is determined or whether it complies with applicable provisions.

The EGRC Regulations allow for the Minister to amend or repeal segregation arrangements by instrument published in the Gazette and provided to each House of Parliament.⁴²

Summary:

- As part of implementing the 2017 replacement foundation transfer mechanism, the retail business unit and the wholesale business unit jointly determine the foundation transfer price for electricity, based on their respective views of a forecast market price for electricity.
- RBU involvement in setting prices for its competitors may confound an assessment of whether the RBU's financial interests are taken into account when setting wholesale supply prices. It may also represent a significant departure from the original intent of the scheme, which was to ensure that the RBU is not advantaged in comparison to its competitors.
- Stakeholders may not be aware of whether the method of calculation of the transfer price has been replaced and if so, how.
- There is no requirement for Synergy to inform the ERA of any changes to the foundation transfer price mechanism to allow for regulatory scrutiny of the changes and their effect on the market.

⁴¹ Synergy can also revise a foundation transfer price mechanism and provide it to the Minister if an applicable provision comes into operation or is amended or repealed. Synergy must revise the foundation transfer price mechanism to the extent necessary to ensure that it complies with each applicable provision. Revisions to the foundation transfer price mechanism come into force when they are given to the Minister, and do not affect the day on which the foundation transfer price mechanism expires.

⁴² See Division 4 of the EGRC Regulations. Commencement times for amended or repealed segregation arrangements may be included in the instrument.

Recommendation:

- The ERA recommends that Synergy publish its foundation transfer price and the method it uses for calculating this price.

2.4. Standard product arrangements

Synergy's WBU is required to offer standard products, which are fixed quantities of energy that Synergy must advertise for sale and purchase at published prices. The Merger Implementation Group, set up by the Minister to provide governance and oversight of the merger of Verve Energy and Synergy, developed the details of the Standard Product Arrangements. Among the overarching goals of the Standard Product Arrangements described by the Merger Implementation Group were the goals to:

- maintain private sector activity by imposing discipline on Synergy's wholesale pricing;
- act as a price discovery mechanism, providing transparency and predictability for short to medium dated contracts for market participants;
- provide a competitive benchmark price to the wholesale supply of electricity on a non-discriminatory basis; and
- provide simple products that are an alternative to customised products, reduce barriers to entry for new entrant retailers, and allow market participants to rebalance their portfolios at the margins.

The scheme specifies the type, quantity and terms of the standard products that Synergy is required to offer to buy and sell to the market. This includes flat and peak (8 AM to 10 PM on business days) quantities of electricity in increments of 0.5 MWh (i.e. 1 MW) per trading interval, over quarterly, calendar and financial year periods.

The standard product regime is the only mechanism in the scheme that deals directly with Synergy's contractual wholesale energy pricing.

2.4.1. The buy-sell spread

Synergy is free to set standard product prices at any level but it is constrained by the scheme, which specifies the buy-sell spread i.e. the price difference between a buy parcel of energy and a sell parcel of energy. The scheme originally set the spread at 25 per cent and reduced it to 20 per cent from 1 January 2015.

Synergy can update its prices up until about a month before the relevant standard product period commences.⁴³ However, it must comply with the discrimination requirements of the

⁴³ The *Electricity (Standard Products) Wholesale Arrangements 2014* define the Transaction Period as: 'the period commencing at 10:00 hours on the date the EGRC first publishes the Availability of the Standard product and ending at 16:00 hours on the last Business Day of the month that begins 2 months before the commencement of the Standard Supply Period applicable to the Standard Product (pp. 1584).'

EGRC Regulations, which prohibit it from discriminating between the RBU and competitors or from taking the RBU's financial status into account when offering wholesale supplies. Transaction prices are the standard product prices published on the date of the transaction.

Many submissions to the ERA's reviews of the scheme have commented on standard product pricing and their understanding of how standard product prices should be set. For instance, in its submission to the 2015 EGRC review, Amada Energy considered that the standard product price should be a reflection of the expected average price.

Also in 2015, Alinta Energy noted that the take up of the standard products had been limited as standard products had not met the market's need for a viable alternative to bilaterally contracting nor adequately underpinned a level playing field. Alinta Energy considered that a reduced spread would assist in price discovery, ensure Synergy prices more efficiently, and better support the achievement of a level playing field.

In its submission to the 2016 EGRC review, Kleenheat argued that the standard products regime is ineffective as a price discovery tool, given the excessive buy-sell spread. Kleenheat supported the ERA's intent to develop an appropriate methodology for an optimal buy-sell spread in standard products.

Kleenheat believes that the design of the standard products regime is flawed for two main reasons.

- Synergy is responsible for determining the standard product price but it has an inherent incentive to restrict the access of its competitors to competitively priced wholesale supply.
- Secondly, the standard product regime is not transparent. The method that underpins it is opaque and leads to concern that its outcomes do not represent fair market value.

To address this, Kleenheat considered that the pricing of the standard products should be determined by a Dutch Auction. This would require Synergy to offer blocks of wholesale electricity to an auction, with market participants bidding for the blocks on a closed tender basis, and multiple bids permitted from single parties. The merits of a Dutch auction, according to Kleenheat, are that it is low cost, administratively simple, and there is more than adequate competitive tension amongst existing and new retailers to ensure the price of standard products is fair to all, including Synergy.

The use of a market based mechanism to set efficient prices for standard products is appealing. Careful consideration needs to be given to addressing the limitations of any chosen option, given the specific characteristics of the SWIS. For example, concerns about the use of a Dutch auction may include the small size of the market and the potential for explicit or tacit collusion to avoid bidding up prices. A Dutch auction may also provide a mechanism for participants to collude and punish Synergy. With too few bidders, and asymmetry between bidders (gentailers versus small retailers,⁴⁴ without generation assets), it may allow some bidders to attempt to win at all costs, deterring entry or depressing the bidding of rivals.

⁴⁴ For the purposes of this review, retailers with less than three percent market share are considered 'small retailers'.

Synergy considered that:

- the standard product regime meets its high level design objectives, including price discovery, and it is operating effectively;
- the standard products regime was not intended to be a benchmark for a competitive price; and
- there is no evidence that the current standard products buy-sell spread is inappropriate and/or not supporting the scheme.

Synergy noted that the forecast for standard product prices is made quarterly on a two-year ahead basis. Synergy noted the difficulties with forming accurate estimations of future pricing, which is highly affected by temperature dependent load forecast variability. Synergy considered that it was unreasonable for the ERA to suggest that it was capable of forecasting a spot price two years out with an accuracy of + or - 5 per cent and that the ERA's suggested 10 per cent spread between the buy and the sell price is not a viable option.

Synergy noted that standard product sell prices tend to fluctuate due to volatility in the forecast and market dynamics and therefore, cannot always be higher than STEM and balancing market prices.

One way to address the volatility, and Synergy's concerns with regard to forecasting two years out, may be to consider the use of varied spreads. Spreads in other markets differ depending on whether they are near term or long term and whether they are baseload or peak products. Products that are traded often have a smaller spread. For example, in the U.K. market, spreads are typically wider for:

- peak products (when demand is typically highest) than for baseload products; and
- products for delivery further out in the future than for the near term.

This reflects the higher volume of trading that occurs in baseload and near term products, as compared to peak products and terms further into the future.⁴⁵

In its 2015 EGRC review, the ERA noted that the key to improving the standard products is determining the right level of spread between the standard product buy and sell prices. A spread that mirrors the expected outcome in a competitive electricity futures market in Western Australia would best meet this purpose.

In a futures market, market participants enter into transactions facilitated by a market maker to avoid risk in spot price volatility. In electricity markets, this corresponds to the risk of agreeing to sell energy in the future at a fixed price but having to purchase it at a future unknown price.

Spreads in markets typically represent the margin market makers or brokers receive for bearing the illiquidity risk. In a liquid futures market where the market maker can easily offset its position through numerous buy and sell transactions with market participants, the buy-sell spread is narrow. When the market is illiquid, the market maker will widen the

⁴⁵ This is particularly visible in the relatively wider spread for peak load delivery four seasons (two years) ahead (page 38).'

https://www.ofgem.gov.uk/system/files/docs/2016/08/wholesale_energy_markets_in_2016.pdf

spread to account for the illiquidity risk. In an illiquid market, the buy-sell spread is widened as the volatility of underlying price increases.

Synergy sets prices for standard products based on its expectation of future energy prices. The uncertainty about future energy prices is captured in the product price offered to the market in the form of a risk premium that adjusts the expected energy price. This risk premium is included regardless of whether the market is liquid or illiquid.

Thus, regardless of liquidity, the uncertainty in underlying prices in the market for two-year forward products is already captured in the price of the product that Synergy receives for trading in standard products.

However, due to the current illiquidity in the standard products market, Synergy requires a spread that is sufficient to cover the illiquidity risk.

The wholesale and retail markets in Western Australia are small such that liquidity may never be as high as in other competitive electricity markets (e.g. the NEM). Thus, a competitively based spread in Western Australia may be different from that observed in other electricity markets, which typically vary between two and eight per cent. In the absence of such competition in the WEM, the scheme specifies the maximum spread, which is currently set at 20 per cent.

The design of the standard product regime does not include a mechanism providing an incentive for Synergy to reduce the spread from its maximum of 20 per cent with increases in liquidity. The obligation to have to buy energy when Synergy is long in generation acts as an incentive to Synergy to keep the spread as wide as possible. Nevertheless, the buy product is integral to ensuring that Synergy does not overprice its sell products. If the spread were narrowed according to the level of liquidity in the market, Synergy would be able to buy and sell to offset its position.

In the 2015 review, the ERA engaged Deloitte Access Economics (**Deloitte**) to provide advice on an appropriate method for estimating the maximum spread.⁴⁶ According to Deloitte, the standard products are an alternative to purchasing electricity in the STEM or balancing market and avoiding the associated price uncertainty. Retailers would prefer to purchase electricity from the STEM rather than the balancing market because they can plan their purchases and buy electricity based on their bids. In 2015, the STEM mean prices and volatility were lower than in the balancing market.

Deloitte estimated STEM market volatility by calculating the mean prices in the STEM over a 21-month period commencing in July 2014. It selected this timeframe because conditions were relatively consistent over the period in terms of market design, and it was post-merger and post removal of the carbon tax. Allowing a 69 per cent chance that Synergy would make a profit on a trade in standard products, Deloitte used the data to produce a method for calculating the maximum spread. The ERA employed this method along with information from other markets to estimate a maximum spread of 10 per cent.

The ERA recommended resetting the spread with reference to the volatility of the STEM, on the basis that the standard product sell price reflects the forecast mean STEM price for the relevant period plus a risk margin to account for market price volatility. Basing the

⁴⁶ See Appendix 6 of the ERA's 2015 EGRC review
<https://www.erawa.com.au/cproot/14503/2/EGRC%20Report%20to%20the%20Minister%20June%202016-%20Public%20Version%20for%20Minister%20to%20table.PDF>

spread on the volatility of the STEM ensures that Synergy is able to profit on its standard product transactions in an illiquid market, as it is sufficient to cover Synergy's exposure to future STEM prices on any standard product transactions.

The relationship between market liquidity and buy-sell spread is circular. Wider spreads are required in illiquid markets to compensate traders or market makers for the risk that they will not be able to balance their position. Narrower spreads can promote liquidity and reduce this risk. Given this circularity, the testing of whether a regulated spread is right for the WEM requires monitoring of the level of liquidity in the bilateral contract market to determine whether the reduced maximum spread has increased liquidity in the market, allowing Synergy to balance its trades. Prices in the standard product market signal prices in the customised product market. Assessment of the level of liquidity in the bilateral contract market will thus require monitoring the level of liquidity in both standard product and customised product markets.

The ERA recommended that the revised maximum spread should be retained for a suitable period to allow the effect of the change on the level of trade on standard and customised products (i.e. whether it increases liquidity) to be assessed. A minimum 12 month period and a maximum 24 month period was considered most appropriate, providing sufficient time for the effects of any changes to materialise and be reviewed.

The ERA recommends the adoption of a 10 per cent maximum buy-sell spread for the pricing of standard products. The reduced maximum spread will incentivise Synergy not to overprice its sell products. The revised maximum spread should be retained for a suitable period (i.e. 12 months) to allow the effect of the change on the level of trade on standard and customised products (i.e. whether it increases liquidity) to be assessed, and whether or not the implementation of varied spreads is required.

Summary:

- Many submissions to the ERA's EGRC reviews have commented on standard product pricing and their understanding of how standard product prices should be set.
- In the 2015 review, the ERA engaged Deloitte to recommend an appropriate method for setting the maximum buy-sell spread in the market. The ERA used this method to calculate a maximum spread of 10 per cent.
- Synergy considered that forecasting a spot price two years out with an accuracy of + or - 5 per cent is not a viable option, and thus, that narrowing the buy-sell spread to 10 per cent is not reasonable.
- The price of the product that Synergy sets in the standard products market captures the uncertainty in underlying prices in the market for two-year forward products. However, Synergy requires a spread sufficient to reduce the likelihood that it will make a loss in an illiquid market. A spread of 10 per cent allows a 69 per cent chance that Synergy will make a profit on a standard product trade.

Recommendation:

- The ERA recommends the adoption of a 10 per cent maximum buy-sell spread, which should be retained for a suitable period (e.g. 12 months) to allow the effect of the change on the level of trade in standard and customised products to be assessed.
- The ERA also recommends consideration of varied spreads for different products, with smaller spreads employed for more frequently traded products and wider spreads employed for illiquid products that have longer term uncertain forecasts.

2.4.2. Specification and credit requirements

Only one standard product transaction occurred in the review period, on 4 November 2016. This was a flat, 5 MW product covering the 2017 calendar year period.⁴⁷ The latter part of 2016 was characterised by increased volatility in energy market pricing and the uptake of customised products, which increased markedly for five participants.⁴⁸ The low level of uptake of standard products in 2016 suggests that the terms and conditions of contracting and/or the specification of the standard products may not match market requirements.

Feedback about the standard products suggests that the credit requirements for wholesale supply by Synergy are burdensome and intrusive.⁴⁹ For example, to trade in standard products a participant is first required to become an approved counterparty to Synergy. Becoming an approved counterparty to trade in standard products requires the participant to provide its last two audited financial year statements. Synergy's Wholesale Energy Credit Policy⁵⁰ requires that, with a few exceptions,⁵¹ a formal credit assessment is performed for a new approved counterparty. Synergy is also required to conduct a formal credit assessment at least every 12 months thereafter, and may conduct credit assessments at its discretion where there are indications of a change to a counterparty's financial health.

⁴⁷ In the 2017 Calendar Year, however, 12 sell transactions were executed over the March to June period. These included six flat products and six peak products. Seven of the products were financial year products, one was a Q3 2017 product, and four were calendar year products. Seven products were for five MWs, one product was for two MWs and four products were for one MW. See <http://wholesale.synergy.net.au/SitePages/Transactions.aspx>

⁴⁸ These included three retailers and two generators.

⁴⁹ For example, refer to page 19 of Community Electricity's submission to the 2014 EGRC review. <https://www.erawa.com.au/cproot/13123/2/20141224%20Public%20Submission%20-%20EGRC%20Regulatory%20Scheme%20-%20Community%20Electricity.pdf>

⁵⁰ In its submission to the 2014 EGRC review, Community Electricity recommended requiring that where an offtake is prepaid in the form of cleared cash on a monthly basis, Synergy should not require provision of financial statements or third party credit assessments.

⁵¹ These include an approved counterparty with a total annual credit exposure of less than \$100,000; an approved counterparty which Synergy is not currently trading with and does not expect to trade within the next 3 months; government departments and government agencies (federal and state); financial institutions approved under the treasury policy and which have a current independent rating agency rating of A or better; the RBU; Horizon and Western Power; or any other statutory bodies corporate which have similar government support in their enabling legislation as that offered within section 119 of the Act (e.g. water corporation).

Such requirements may be disproportionate to the type of product that is contracted under a standard product arrangement, especially when compared to customised products that must be tailored to meet the individual requirements of retailers.

The standard product arrangements address the objective of imposing pricing discipline on Synergy through the inclusion of a spread. The requirement to advertise standard product prices addresses the objective of providing pricing transparency to the market. However, the standard product arrangements do not appear to adequately address the objectives of providing simple products (e.g. off peak products) that are an alternative to customised products, reducing barriers to entry for new entrants, and allowing market participants to rebalance their portfolios at the margins.

In its 2015 EGRC review, the ERA found that a large number of requests for quotes for customised products were for off-peak products, which are not included in the standard product arrangements. The ERA recommended that, given this interest, consideration should be given to requiring Synergy to offer an off peak standard product.

There are strong similarities in product offerings between the standard products regime and Alinta Energy's 'Electricity Fixed Forward Products' exchange, which began operation in early 2015, and has competed against the standard products regime since this time.⁵² Like Synergy, Alinta Energy offers standard energy prices for peak load products, with quarterly, calendar year or financial year terms, and varying volumes of anywhere from 1 to 6 MW.⁵³ Unlike Synergy, Alinta Energy also offers off-peak fixed forward products.

In the 2016 Request for Quote log, contracts that were subsequently entered into by market participants were categorised as executed contracts. Of 490 rows of listed quotes, [REDACTED] quotes were identified as being executed. The executed contracts for customised products variously included peak or off-peak volumes or both.⁵⁴ Analysis of the executed contracts indicated that market participants may be interested in contracting in standard products with:

- Larger volumes over shorter terms than a quarter
- smaller volumes over longer terms;
- varying definitions of peak periods; and
- flexible commencement dates.

Only one small retail⁵⁵ participant has formally sought quotes on customised supply from Synergy and no small retailers entered into contracts with Synergy over the review period. Small retailers often report a lack of opportunity for contracting in the market.⁵⁶ This indicates that the advertised standard product pricing or the terms for entering into such a contract may be particularly prohibitive for these participants. With limited opportunities for

⁵²For product types and prices refer to <http://www.alintaenergyexchange.com.au/trading/electricity-fixed-forward-trading/>

⁵³ Standard product contracts often involve volumes up to 5MW, which is the maximum volumes that can be contracted within a week.

⁵⁴ The participants contracting were [REDACTED] The complete analysis of the executed contracts is provided in Appendix 3.

⁵⁵ A retailer with less than three percent market share.

⁵⁶ Most recently, at the ERA's 2016 Stakeholder Workshop, Perth Energy and ERM reported a lack of contracting opportunities.

contracting, small retailers may choose not to compete for new business, thereby limiting competition in the retail market.

In its submission to the 2014 EGRC review, Community Electricity recommended:

- provision of products to match the market rules definitions of peak and off peak, thereby creating 'overnight' and 'daytime' products;
- supply periods of 1 month with flexible mid-month commencement dates, rather than the current calendar quarter;
- retaining the obligation placed on Synergy to offer symmetric buy and sell pairs only where it makes sense to;
- the provision of sell-only time-blocks targeted at market conditions; for example 5-hour blocks commencing at, say, 05:00 and 16:00 to cover the operation of peaking stations; and
- the provision of basic risk management products such as caps.

The ERA recommends that Synergy relax the credit requirements for the standard products, and review and amend the standard product specifications.

Summary:

- The low level of uptake in 2016 suggests that the terms and conditions of contracting and/or the specification of the standard products do not match market requirements.
- The customised product Request for Quote log provides some indication of market participant preferences for contract specifications however; it may exclude the requirements of small retailers who did not trade in customised products in the review period.

Recommendations:

- The ERA recommends that Synergy relax its credit requirements so that they are proportionate to Synergy's exposure to the risk of counterparty default under the standard product regime.
- The ERA also recommends review and amendment of the standard product specifications.

2.4.3. Standard product force majeure provisions

Synergy was obliged under the Standard Product Arrangements to provide standard products for trade, and to implement force majeure provisions,⁵⁷ which Synergy included in its Bilateral Trade Agreement for Electricity (Standard Products).⁵⁸

Feedback from stakeholders indicates that the force majeure provisions may reduce the use of standard products as a risk management tool for small existing or new entrant retailers.⁵⁹ The suspension clauses included in the force majeure provisions, which remove Synergy's liability to meet its obligations if certain criteria are met, are particularly problematic.⁶⁰

For example, under the standard products arrangements, the consequences of force majeure events are asymmetric depending on the body acting as the seller in a standard product transaction. If Synergy or another party is the seller in a transaction, an event contributing to a minimum 20 per cent reduction (in aggregate) in the generation of electricity from the seller's facilities triggers a force majeure event.

However, if Synergy is the seller in a transaction, interruption to the generation of electricity from only one of a list of specified plants, listed in Table 2,⁶¹ triggers suspension of Synergy's obligations. As shown in Table 2, the individual contribution of specified plants to the aggregate electricity generation capacity of Synergy is limited to 2 to 9 per cent of the total capacity credits owned or controlled by Synergy.

Table 2. Specified plants and their contribution to Synergy's capacity portfolio

Specified plant	Capacity credit (MW)*	Per cent of Synergy's capacity portfolio (%)
SWCVJ_WORSLEY_COGEN_COG1**	107	3
MUJA_G5	195	6
MUJA G6	193	5
MUJA G7	211	6
MUJA G8	211	6
COLLIE_G1	317	9
COCKBURN_CCG1	232	7
BW1_BLUEWATERS_G2	217	6

⁵⁷ See section 10. A force majeure event is defined as any event or circumstance or combination of events and circumstances the cause of which is beyond the reasonable control of a party and which by the exercise of due diligence the party is not reasonably able to prevent or overcome

⁵⁸ See Bilateral Trade Agreement for Electricity (Standard Products) <http://wholesale.synergy.net.au/Documents/EGRC%20Standard%20Product%20Agreement.pdf>. Also see section 6.5 of [https://www.slp.wa.gov.au/gazette/gazette.nsf/searchgazette/E81FAE2E67051AB248257CDA0025714A/\\$file/gg073.pdf](https://www.slp.wa.gov.au/gazette/gazette.nsf/searchgazette/E81FAE2E67051AB248257CDA0025714A/$file/gg073.pdf)

⁵⁹ For example, refer to Community Electricity's submissions to the 2014 EGRC review (page 1), Community Electricity's 2015 EGRC Reviews (page 1), and Amanda Energy's submission to the 2015 EGRC review (page 2) <https://www.erawa.com.au/electricity/wholesale-electricity-market/reviews/the-electricity-generation-and-retail-corporation-egrc-regulatory-scheme>

⁶⁰ For example, see clause 10.1(c)(2).

⁶¹ These plant are specified in the Standard Product Arrangements and the Bilateral Trade Agreement for Electricity (Standard Products).

Specified plant	Capacity credit (MW)*	Per cent of Synergy's capacity portfolio (%)
BW2 BLUEWATERS G1	217	6
PPP_KCP_EG1	80	2
NEWGEN KWINANA	320	9
Non-specified plants (owned or controlled by Synergy)***	1,223	35

* Approved capacity credit (2017–18)

** Worsley Cogeneration was deregistered on 2 March 2017. However, during 2016 the plant was a registered facility of Synergy.

*** Non-specified plants are those registered facilities of Synergy that are not defined as specified plants for the purposes of clause 10.1(c)(2) of the Bilateral Trade Agreement for Electricity (Standard Products).

For example, if one of Synergy's plants specified for the provision of standard products was interrupted (i.e. on outage) due to a force majeure event such as a bushfire, Synergy would not be liable to honour its standard product contracts, to the extent and for the period it was hindered, prevented or delayed by this event. If the suspension clause was triggered, the contract counterparty that had hedged to manage high price risks would then be exposed to high prices in the STEM or balancing market.

Periods of supply scarcity are also times when the force majeure suspension clause is activated and prices in the energy markets are the highest. The suspension clause transfers any risk that Synergy holds to the counterparty, thereby limiting the ability of the counterparty to manage that risk.

Given the widespread distribution of Synergy's portfolio, the possibility of Synergy having no alternatives for supply is an unlikely outcome when compared to other market participants with substantially smaller generation capacity. The suspension clause in the standard products arrangements is thus too conservative in reducing the exposure of Synergy to force majeure events, and skewed to the advantage of Synergy.

Summary:

- The Standard Product Arrangements contain force majeure provisions, which stakeholders indicate may reduce the use of standard products as a risk management tool.
- The consequences of force majeure events are asymmetric depending on the body acting as the seller in a standard product transaction. When the seller is Synergy or a counterparty, an event contributing to a minimum 20 per cent reduction (in aggregate) in the generation of electricity from the seller's facilities triggers a force majeure event.
- However, if Synergy is the seller in a transaction, the force majeure event can be any event interrupting the generation of electricity from

any of the specified plant defined in the Standard Product Arrangements.

- Given the widespread distribution of Synergy's portfolio, the possibility of Synergy having no alternatives for supply is low when compared to other market participants with substantially smaller generation capacity. The suspension clauses in the standard products arrangements are thus too conservative in reducing the exposure of Synergy to force majeure events, and skewed to the advantage of Synergy.
- The time when supply is scarce is also the time when the force majeure suspension clauses are activated and prices in the energy markets are the highest. The suspension clauses thus transfer any risk that Synergy holds to the counterparty.

Recommendation:

- The ERA recommends amendment of the force majeure clauses in the standard product arrangements to make them less conservative and symmetric.

3. Segment financial reporting

To provide transparency and accountability concerning Synergy's obligations under the wholesale arrangements, the scheme requires Synergy to prepare separate statements of financial performance for each of its segmented business units. Under the Act, the Minister, in consultation with the Synergy Board, is then required to make these reports publicly available.

The RBU supplies electricity to two markets. In the contestable retail market it faces competition with other retailers. Customers in the SWIS consuming more than 50 MWh of electricity (usually small to medium or large businesses) are contestable customers, and can negotiate the rates they pay with their chosen retailer. Contestable customers who consume between 50 and 160 MWh per year can also choose to either pay the relevant capped rates offered by Synergy, or be supplied by Synergy or another retailer at negotiated tariff rates. The RBU thus competes in the contestable market with other retailers to supply these customers.

Only the RBU is able to supply to non-contestable small-use⁶² customers, who are customers consuming less than or equal to 50 megawatt hours (MWh) of electricity per year. These customers are usually residential households or small businesses, who pay electricity prices that are regulated by the Western Australian Government. The cost of supplying the electricity to non-contestable customers is greater than what non-contestable customers are charged and it is therefore subsidised by the Government through the Tariff Adjustment Payment (**TAP**).

Other retailers have previously raised concerns that Synergy's contestable business could be subsidised by pass-through of the TAP from the monopoly side of the business to the contestable side.⁶³ For example, in its submission to the 2015 review, ERM Power noted that it understood that Synergy currently supplies electricity in the residential, non-contestable business and franchise contestable (50–160 MWh) customer segments but that the TAP was not widely understood. ERM Power asserted that potentially, the TAP is used to subsidise all three market segments. It noted that there is little transparency in the classification of customers and decisions as to whether subsidisation through the TAP is warranted for particular classes, and that the TAP has not been reported on in any meaningful detail.⁶⁴

The ERA's 2015 review found that Synergy's financial reports did not separate gas and electricity or contestable and non-contestable financial results. The reports varied in the information provided and the time periods covered. This has limited the ability to scrutinise the financial results of each business unit's electricity activities.

The ERA recommended including a requirement for the provision of consolidated segmental statements to increase transparency of Synergy's revenues, costs, and profits.⁶⁵ This would

⁶² A retail customer with an electricity consumption less than 160 MWh per year is considered to be a 'small-use' customer.

⁶³ Those stakeholders include Alinta Energy, Amanda Energy, Community Energy, and ERM Power.

⁶⁴ ERM Power (2015) Submission to Discussion Paper: 2015 Annual Report to the Minister on the Effectiveness of the EGRC Regulatory Scheme, ERM Power, Perth page 3, Available from : <https://www.erawa.com.au/cproot/14019/2/ERM%20Power%20-%20Public%20Submission%202015.pdf>

⁶⁵ Refer to Appendix 2 of the ERA's review of the EGRC scheme 2015 for a detailed explanation of the requirements for consolidated segmental statements.

ensure that the reports are prepared on a consistent basis and provide sufficient information in relation to transfer pricing, including demonstrating there are no cross subsidies. The Office of Gas and Electricity Markets in the U.K. adopted a similar approach where gentailers are required to publish audited annual segmental statements.⁶⁶

In 2016, other retailers supported the recommendation for the implementation of requirements for providing transparency to Synergy's financial arrangements and, in particular the TAP. For example, Kleenheat considered that further segmentation of Synergy's financial reporting is required to provide transparency of Synergy's results between contestable and non-contestable retail electricity segments, in order to provide confidence to market participants that the business is appropriately segmented and there is no cross subsidisation. Kleenheat recommended reform to the scheme to encompass more granular reporting of Synergy's profit performance in the contestable and non-contestable segments.

Additionally, Kleenheat considered that an important requirement to improve transparency in the market is to require Synergy to adopt facility bidding. Kleenheat suggested that, to provide further confidence to market participants, and in the lead up to facility bidding, for at least 12 months prior to commencement, Synergy should be required to report its generation results by facility. Kleenheat considered that this would provide transparency around plant efficiency, availability and cost, and allow market participants to gain clarity on the likely dispatch profile and potential investment requirements in the market.

Synergy had two main concerns with the ERA's recommendation for Synergy to provide consolidated segmental statements, similar to those required to be produced by participants in the U.K. market. Firstly, Synergy noted that one of the policy drivers behind the introduction of the financial information reporting obligations in the U.K. market was a perception that retail competition was not giving rise to the benefits expected. Retail consumers had incurred significant increases in prices and churn rates were much lower than anticipated, resulting in the continued dominance of incumbent suppliers.

Synergy noted that the context in the SWIS is fundamentally different. Synergy considered that competition in the contestable market is fierce and that Synergy's market share is radically lower than the 87 percent market share of the U.K.'s six large suppliers.

Secondly, Synergy considered that if the requirement for the provision of consolidated segmental reports was implemented like in the U.K. market design, this proposal would be unduly onerous on all other parties caught by the provisions, such as Alinta.

An analysis of retail competition in the contestable retail market for the 2016 period indicates that competition has continued to develop, with Synergy losing some market share to rivals. However, competition in the contestable retail market is occurring between six main participants that also own generation assets and have the capacity to self-hedge. There has been no growth in the market share of small retail market participants.

Synergy is the dominant supplier in the market and it is the only participant receiving a government subsidy for monopoly customers. At present, there is nothing in the scheme

<https://www.erawa.com.au/cproot/14503/2/EGRC%20Report%20to%20the%20Minister%20June%202016-%20Public%20version%20for%20Minister%20to%20table.PDF>

⁶⁶ Refer to: <https://www.ofgem.gov.uk/gas/retail-market/retail-market-monitoring/understanding-profits-large-energy-suppliers>

requiring separation of Synergy's financial reporting on the electricity activities of the monopoly and contestable sections within the RBU. This leads to concern amongst other market participants about the potential for cross-subsidisation and adverse effects on competition in the retail market.

The requirement for Synergy to provide consolidated segmental financial statements will allow for scrutiny of Synergy's revenues, costs and profits to remove any concerns regarding cross-subsidisation. There will need to be an appropriate balance between transparency and the cost of preparing the information. Information sensitive to Synergy's commercial operations will need to be protected. This can be managed by specifying that Synergy provide a confidential version of the information to the ERA for regulatory scrutiny, as well as a public version of the information.

Summary:

- In its earlier reviews, the ERA found that Synergy's financial reports did not separate gas and electricity or contestable and non-contestable financial results. The reports varied in the information provided and the time periods covered. This has limited the ability to scrutinise the financial results of each business unit's electricity activities.
- Synergy is the dominant supplier in the market and it is the only participant receiving a government subsidy for monopoly customers.
- There is nothing in the scheme requiring separation of Synergy's financial reporting on the electricity activities of the monopoly and contestable sections within the RBU. This leads to concern amongst other market participants about the potential for cross-subsidisation and adverse effects on competition in the retail market.

Recommendation:

- Synergy to provide segmented financial reports to ensure transparency regarding how its revenues, costs, and profits are split across Synergy's different electricity segments.

4. Other areas for improvement of the scheme

The ERA has identified a number of other areas for improvement of the scheme. The main issues identified in this section are summarised briefly in Table 3 and discussed in more detail in the following sections.

Table 3. Summary of other issues with the scheme.

Scheme element	Issue
Ring fencing arrangements	
Privileged access to information	The definition of a force majeure event in the foundation transfer price mechanism provides for any reduction in the electricity able to be supplied by the WBU to the RBU to be classed as a force majeure event. The event does not have to be beyond Synergy's reasonable control or an event which by the exercise of due diligence, Synergy is not reasonably able to prevent or overcome. Changes in circumstances that are 'likely' to occur (have not actually occurred), such as force majeure events or changes to the price or cost of fuel, require a meeting between the WBU and the RBU. This may provide the RBU with access to information prior to others in the market. ⁶⁷
Staff movement	The scheme does not constrain the movement of staff with knowledge of commercially sensitive information from one business unit to another. If staff movements between segregated business units are high, there is a greater opportunity for sharing sensitive information, deliberately or otherwise. ⁶⁸
Audit and review arrangements	

⁶⁷ See section 4.1.1.

⁶⁸ See section 4.1.2.

Scheme element	Issue
Scheme objective	The scheme does not contain a statement of its purpose. This leads to uncertainty in what the scheme is trying to achieve, what constitutes compliance with the scheme, and the effectiveness of the scheme. It also leads to concerns about the scope of the ERA's review. ⁶⁹
Structural separation and continuance of the scheme	<p>Synergy recommended that a detailed regulatory impact analysis would demonstrate that relaxation of the scheme could be justified. Synergy suggested that the scheme duplicates existing legislation such as the Competition and Consumer Act and could be removed. However, the Competition and Consumer Act is currently under review and amendment. The potential of the updated Competition and Consumer Act to deliver similar or improved competition outcomes to the scheme is unknown.</p> <p>Others in the market opposed removal of the scheme, and instead encouraged the government to consider structural separation of Synergy.⁷⁰</p>
Compliance monitoring	There is the potential for non-compliant behaviour (whether intentional or otherwise) to persist for an extended period before it is identified. The non-compliance may be damaging to new entrants or smaller participants, limiting their ability to compete effectively in the market. ⁷¹

⁶⁹ See section 4.2.1.

⁷⁰ See section 4.2.2.

⁷¹ See section 4.2.3.

Scheme element	Issue
Penalty provisions	The scheme includes a requirement for Synergy to maintain specific records to allow for assessment of Synergy's compliance with the non-discrimination provisions in the scheme, which are subject to civil penalties. However, the requirement to keep the records is not subject to civil penalties. Where Synergy does not maintain its record keeping, the Auditor General's assessment of compliance with the non-discrimination provisions may be undermined. ⁷²
Complaints process	There is limited visibility of a complaints procedure or complaint outcomes. Stakeholders are concerned that if the Minister refers a complaint back to Synergy there is the potential for reprisals and bias in future commercial dealings. ⁷³
Review process	Synergy is dominant in the market and participants may have little option other than to seek supplies from Synergy. Reporting concerns about the arrangements or Synergy's conduct may lead to fear of bias, reprisals or disincentives, and hinder effective identification and resolution of issues with the scheme. There is an asymmetry in access to information about the scheme, to Synergy's advantage. This reduces stakeholder confidence in the scheme and their ability to contribute effectively to the annual review of the scheme. ⁷⁴
Review of draft report	Synergy suggests that the final report would benefit from a public review period to provide opportunities to address matters raised in the review and provide evidence to support claims. Such a process would require careful implementation to ensure that commercially sensitive information remains confidential to the respective parties, and that regulatory costs and the time taken to conduct the review and present the final report are minimized. ⁷⁵

⁷² See section 4.2.4.

⁷³ See section 4.2.5.

⁷⁴ See section 4.2.6.

⁷⁵ See section 4.2.7.

4.1. Ring fencing

The scheme requires that Synergy's operations are segmented into those performed by the GBU, WBU, RBU and shared service operations, plus any additional segment(s) approved by the Minister. The WBU is responsible for all wholesale energy trading, including pricing between the GBU and RBU, all wholesale trading with third parties, and trading in the STEM and balancing markets.

The WBU is ring fenced, such that WBU staff that have access to restricted information occupy work areas that are separate from work areas occupied by GBU and RBU staff.⁷⁶ Synergy must ensure that information relating to a retail competitor that is obtained by the WBU and that might reasonably be expected to materially adversely affect the commercial interests of that competitor (i.e. retail restricted information) is not disclosed to RBU staff. Similarly, it must ensure that information relating to a generation competitor obtained by the WBU and that might reasonably be expected to materially adversely affect the commercial interests of that competitor (i.e. generation restricted information) is not disclosed to GBU staff.

Synergy is required to implement and maintain information technology access controls, and a staff-training regime⁷⁷ to ensure compliance with these obligations. Synergy must ensure that a member of staff who has management responsibility (i.e. authority to make decisions about the day-to-day management and operation of the business) for one business unit does not have management responsibility for the other business units.

4.1.1. Privileged access to information

Stakeholders have raised concerns that the ring fencing arrangements are not strong enough to ensure that the RBU does not have privileged access to information that would provide it with an unfair advantage in winning contracts. Scrutiny of the foundation transfer pricing mechanism suggests that there may be some merit to stakeholder concerns regarding privileged access by the RBU to fuel and outage information.

The force majeure provisions in the foundation transfer price mechanism⁷⁸ provide for a meeting of Synergy's business units to negotiate and agree on cost allocations arising from the financial consequences of a change to the price of fuel or the cost of fuel of the WBU, including changes to costs incurred in fuel storage, transport or delivery. The RBU may thus have access to fuel information affecting the market earlier than other retailers in the market.

The foundation transfer price mechanism loosely defines a 'wholesale force majeure event' as an:

'event or circumstance which has the effect of reducing the electricity able to be supplied, or made available, by the WBU to the RBU, including from generation facilities owned or operated by the EGRC or pursuant to agreements with third parties.'

⁷⁶ If the work areas are protected by controls that prevent generation staff and retail staff from entering them.

⁷⁷ Synergy must conduct this training at least once each year.

⁷⁸ See section 8 (in particular) 8.1.3, 8.2 and 8.4 of the original Internal Synergy Wholesale Arrangements, and section 7 of the replacement Internal Synergy Wholesale Arrangements.

There is no requirement for the event or circumstance reducing the electricity able to be supplied to be beyond the reasonable control of Synergy and which, by the exercise of due diligence, Synergy is not reasonably able to prevent or overcome (as a force majeure event is defined under the standard product and customised product arrangements). The foundation transfer pricing mechanism requires that if there is an event that is or 'is likely to be' a change in circumstance, the WBU is required to notify the RBU of such an event.⁷⁹

Any form of outage may have the effect of reducing the electricity able to be supplied or made available and thus could be classed as a wholesale force majeure event within the context of the foundation transfer pricing mechanism, and the RBU may be notified that an outage is 'likely' to occur, even before it happens. The RBU may thus have access to outage information affecting the market earlier than others in the market, thus providing it with an advantage.

4.1.2. Staff movements

The scheme does not contain provisions that constrain the movement of staff who have access to restricted information from employment by one business unit to another. A staff member who has commercially sensitive information about the negotiations between a particular business unit and a competitor could move to another business unit where that information can be used to Synergy's advantage.

There are precedents in other jurisdictions and industries for restrictions on staff movements or requirements to declare where staff are not subject to ring fencing restrictions. The Irish Commission for Electricity Regulation imposes regulation around the directors of ring-fenced entities. Where projects or business activities are ring-fenced as separate entities, joint ventures or separate subsidiaries, such as new renewable projects, then the directors of the ring-fenced unit must not have worked for a distribution or network service provider for the preceding three months.

Similarly, ring fencing requirements were introduced into the U.K. banking sector following the global financial crisis that, amongst other things, restricted staff movements between ring-fenced businesses. For example, directors of ring-fenced businesses are required to be independent and are not considered independent, if they receive remuneration (apart from their directors' fees) from the ring-fenced body or another member of its group. Former employees can be considered independent only after five years away from employment with the ring-fenced body.

The Australian Energy Regulator provides Ring-Fencing Guidelines for network service providers that have both regulated and non-regulated business segments. The service provider must ensure that there is no sharing of staff except in certain circumstances.⁸⁰ There is a separate requirement to establish, maintain, and publish a register of the nature of any staff position shared between segments that are not covered by the exclusions.⁸¹

Excluding individuals from moving between roles within Synergy for set periods is impractical in a small electricity sector such as Western Australia where the pool of

⁷⁹ See sections 8.1.4 and 8.2.

⁸⁰ Refer to [AER ring-fencing guidelines 2016](#), clause 4.2.2.

⁸¹ Typical exclusions are where staff do not have access to electricity information, or who have access to information but have no opportunity to use that information in conduct contrary to the service providers' obligations.

experienced electricity professionals is limited. The requirement to maintain a public register of staff position movements between separate business units, subject to suitable exemptions as exist in the Australian Energy Regulator Guidelines, should be relatively straightforward for Synergy to maintain.

The possibility for, and extent of, staff movements between segregated business units, creates opportunity for sensitive information to be shared, either deliberately or inadvertently.

4.2. Audit and review

4.2.1. Scheme objective

In its 2015 EGRC review the ERA noted that the Electricity Corporations Act, which provides the regulation-making head of power for the scheme, does not include a statement of the purpose or ‘objective’ of the scheme.

The omission of an objective introduces a specification risk to the scheme. Specification risks occur where the form of conduct required to address the effect of market power on competition cannot be specified clearly enough to provide an effective basis for monitoring and compliance. The intended operation of a measure needs to be clear to the regulated entities and any other relevant party, so that it is apparent what conduct constitutes compliance, and what conduct does not constitute compliance.⁸²

Synergy, in its submission to the ERA’s 2014 review, highlighted the difficulties that the ERA, stakeholders and Synergy encounter due to this lack of specification:

‘The lack of clarity around the precise policy objective for the scheme makes it difficult for the ERA to conduct an effectiveness review (and for stakeholders to comment) as well as impacting Synergy as it has been required to and must continue to implement the obligations under a regulatory scheme which contains no specific and measurable policy goals.’⁸³

Uncertainty in understanding what behaviours constitute compliance and what behaviours constitute non-compliance may place undue burden on Synergy, impeding business growth and innovation, and distracting managers from its core business.⁸⁴

This uncertainty also flows through to the regulator, who may have a different understanding of the scheme’s purpose to the regulated entity, having implications for the assessment of the effectiveness of the scheme, and the validity of findings. A clear objective will enable more effective monitoring to assess the success of the scheme in achieving its intended aim.

⁸² Competition Commission Competition Commission (April 2013). CC3 (Revised) - Guidelines for market investigations: Their role, procedures, assessment and remedies. Page 99.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/284390/cc3_revised.pdf

⁸³ Refer to page 3, point 5 of Synergy’s submission:

<https://www.erawa.com.au/cproot/13125/2/20141224%20Public%20Submission%20-%20EGRC%20Regulatory%20Scheme%20-%20Synergy.pdf>

⁸⁴ Commissioner for Better Regulation (2016). Victorian Guide to Regulation: A handbook for policy-makers in Victoria. State of Victoria. <http://www.betterregulation.vic.gov.au/Guidance-and-Resources>

The identification of the nature and extent of the problem addressed by the scheme, as is provided in a statement of a scheme's purpose, is an important step in evaluating the types of interventions implemented and whether they are effective.

In its response to the 2016 discussion paper, Alinta Energy broadly supported the ERA's interpretation of the scheme's objective, noting that it aims to ensure the maintenance of a level playing field for government and private sector businesses in the SWIS post-merger, providing competitive neutrality to ensure efficient market outcomes. Kleenheat held a similar view and suggested that the scheme could be further improved by defining what a level playing field is in order to be able to assess the scheme's effectiveness.

In response to earlier reviews, Synergy agreed that the objective of the scheme should be specified to enable the assessment of its effectiveness. The ERA considered that an explicit statement of the objective would remove any concerns that Synergy may have in relation to the scope of the review. It would also remove the potential for other considerations, such as Synergy's financial position, to take precedence in a review, which negates the effectiveness of the scheme in mitigating market power.

More recently, in its response to the ERA's 2016 discussion paper, Synergy offered that the scheme's effectiveness could be improved by specifying the criteria the ERA must apply or take into account when undertaking its assessment. This would remove the uncertainty to Synergy, the ERA, and the market on how an effectiveness review is conducted and the matters reviewed therein.

However, specifying the criteria the ERA must apply or take into account when undertaking its assessment will reduce the flexibility that it has in assessing the effectiveness of the operation of the scheme in a constantly evolving electricity market.

Specifying an objective in the scheme in terms of the end to be achieved, rather than the means to achieve it, will remove the uncertainty that currently exists in relation to the scheme. Without an objective in place, it is difficult to assess whether the scheme provides a net benefit compared to a do nothing approach or whether particular elements of the scheme continue to be needed.

Discussions with the Public Utilities Office indicate that the inclusion of an explicit statement of what the objective of the scheme is would require that it is included in the Act. The ERA does not have a view on the best way to incorporate the objective into the scheme but continues to recommend that doing so is necessary.

4.2.2. Structural separation and continuance of the scheme

In its submission to the ERA's discussion paper, Synergy argued for relaxation of the scheme. Synergy considered that, given the ERA's understanding of the objective of the scheme and in the event that an 'effects test' of the kind described in the *Competition and Consumer Amendment (Misuse of Market Power) Bill 2016 (Cth)* is introduced to section 46 of the *Competition and Consumer Act (Cth)*, a detailed regulatory impact analysis would demonstrate that relaxation of the scheme could be justified in accordance with good regulatory practice.

The *Competition and Consumer Amendment (Misuse of Market Power) Bill 2017* is intended to strengthen the restrictions on corporations with substantial market power from engaging in conduct that has the likely effect of lessening competition in markets where they

compete.⁸⁵ The revision relevant to section 46 of the *Competition and Consumer Act 2010* is commonly referred to as the 'effects test'. The Bill is currently before the Senate having had second readings in both houses in March 2017.

The effects test is a recommendation stemming from the government's Harper Competition Policy Review conducted in 2014/15. The change was introduced with the intent of protecting the competitive process and not individual competitors. In conducting an effects test the ACCC no longer has to prove that a company with market power is taking advantage of a competitor or has an anti-competitive purpose, instead the ACCC will look for proof that the effect or the likely effect of the conduct will be a lessening of competition in the market. Indicators of market competition considered in such an assessment could include market concentration, barriers to entry, extent of vertical integration and any formal or fundamental arrangements between firms that restricts their ability to function independently.

The Competition and Consumer Amendment (Misuse of Market Power) Bill 2016 (Cth) is currently under review and amendment. The potential of the updated amendment to deliver similar or improved competition outcomes in the WEM as the scheme is unknown.

Others in the market opposed removal of the scheme, and instead encouraged the government to consider structural separation of Synergy. For example, Bluewaters noted that market competition is an important element underpinning the optimal utilisation of resources in the WEM for meeting consumer's needs, thus promoting the Wholesale Market Objectives.

Bluewaters considered that the current market structure in the WEM gives rise to significant market concentration risk and if such a scheme were not in place market competition could be substantially diminished. However, Bluewaters considered that, due to the regulated nature of the scheme, it is still the second best solution for promoting competition in the WEM compared to having an appropriate market structure (supplemented by best practice measures) to support actual effective market competition.

Bluewaters therefore supported continuation of the scheme until the market concentration issues in the WEM are resolved.

Given Synergy's dominance in the wholesale supply market and its impact on the effectiveness of competition, the scheme should remain in place, preferably in an amended form incorporating the recommendations from the ERA's reviews.

4.2.3. Compliance monitoring

The ERA previously highlighted the possibility of a substantial lag between an occurrence of discriminatory behaviour and reports of that behaviour. The ERA recommended that, if cost effective, the Auditor General should report more frequently and that Synergy should self-report any non-compliance.

Where customers and market participants who compete with Synergy have a clear understanding of the scheme they may be in a strong position to report instances of non-

⁸⁵ Refer to

http://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bld=r5788

compliance.⁸⁶ This is assuming a suitable complaints process that is able to discriminate between complaints that are reasonable and those that are fraudulent, vexatious or frivolous (see further discussion of complaints process below).

Stakeholder feedback about the compliance process was mixed. For example, Alinta Energy generally agreed with the ERA, noting that the possibility of a substantial lag between non-compliant behaviour occurring, being reported and being referred to the ERA for investigation was concerning where the behaviour involves disclosure of restricted information and discriminatory pricing behaviour. Alinta considered that broader compliance arrangements should be streamlined such that there is better alignment between the Auditor General's audit processes and the ERA's annual review of the effectiveness of the scheme.

Whilst the Auditor General conducts a financial year and a calendar year review of Synergy's compliance with the scheme, the ERA reviews the effectiveness of the scheme on a calendar year basis. The timeframe for completion of the Auditor General's reviews allows the ERA to take into account the Auditor General's findings in completing its review. The Auditor General's audit processes and the ERA's annual review of the effectiveness of the scheme are already well aligned.

Alinta also recommended that consideration be given to whether there are any refinements to the scheme that could ensure responses to potential non-compliance are immediate; and that Synergy be required to self-report material breaches for non-compliance with the scheme.

Synergy considered that the current level of audit and review is bordering on excessive and that more frequent reviews will result in regulatory burden that is inconsistent with good regulatory practice or good public policy.

Synergy contended that standard regulatory practice is to incentivise market participants to attain good compliance behaviour by extending the regulatory audit or review periods. Conversely, poor compliance is addressed by increasing audit and review frequency compliance.

Even though Synergy has complied with the requirements of the scheme to date, the potential for a substantial lag between non-compliant behaviour (whether intentional or otherwise) and the identification of that non-compliance still exists. Non-compliance that occurs for an extended period could have material consequences, including the potential to damage smaller retailers, making them less effective competitors.

4.2.4. Penalty provisions

The scheme's non-discrimination requirements are subject to civil penalty provisions.⁸⁷ Another regulation⁸⁸ supports the assessment of compliance with the non-discrimination provisions by requiring Synergy keep records of:

⁸⁶ Competition Commission (April 2013). CC3 (Revised) - Guidelines for market investigations: Their role, procedures, assessment and remedies. Page 100.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/284390/cc3_revised.pdf

⁸⁷ Schedule 1 and Regulation 22.

⁸⁸ Regulation 25.

- responses given to requests by the RBU, retail or generation competitors for a wholesale supply of electricity, and the documents or other material relied upon in giving the response; and
- Synergy's ability to offer a wholesale supply of electricity at the time each request is made, taking into account any contracts, agreements or other arrangements entered into by Synergy in relation to such supply.

This regulation is not subject to civil penalties for non-compliance. The requirement to maintain records of the pricing approach adopted by Synergy, together with any underlying assumptions, is included in the considerations of the Wholesale Electricity Supply Policy⁸⁹.

[REDACTED]

[REDACTED] If Synergy's record of its ability to offer wholesale supplies of electricity is not available, then a complete assessment of Synergy's compliance with the non-discrimination requirements is not possible.

[REDACTED]

4.2.5. Complaints process

In its summary presentation of major discussion points from the private sector merger briefing on 26 September 2013, the Merger Implementation Group⁹¹ noted the following:

'If a market participant alleges that the merged entity engaging in behaviour which is not consistent with the regulatory regime, a complaint can be lodged directly with the Minister for Energy or with the Public Utilities Office'.⁹²

At the time, the Merger Implementation Group was also considering a more formal reporting process. However, ultimately, the scheme did not include a prescribed avenue for making complaints to the Minister, the Public Utilities Office or the regulator charged with assessing the effectiveness of the scheme.

Some participants, such as small retailers, have limited option other than to seek supplies from Synergy. Having to report any concerns to the Public Utilities Office or the Minister for Energy may thus lead to fear of bias, reprisals or other disincentives. It may also hinder the effective identification and resolution of issues with the scheme.

Synergy suggested that there is no need and no justification for an independent formal complaints process on EGRC matters. Synergy reasoned that such a mechanism creates the risk of frequent and spurious complaints, and the ERA's annual effectiveness review is an adequate forum for stakeholders to substantiate their concerns. Synergy considered

⁸⁹ See section 8 of Wholesale electricity Supply Policy available here <https://www.synergy.net.au/About-us/Who-we-are/What-we-do/Wholesale-Business-Unit>

⁹⁰ Letter dated 17 August 2016.

⁹¹ The Minister established the Merger Implementation Group to be responsible for the governance and oversight of the merger of Verve Energy and Synergy.

⁹² Refer to the last slide of: http://www.finance.wa.gov.au/cms/uploadedFiles/Public_Utility_Office/Policy_projects/Private-Sector-Briefing-Summary-of-discussion-points-26-September-2013.pdf

that despite there being no formal complaints process, stakeholders are free to engage with the Minister, the ERA or the Public Utilities Office at any point in time and have done so in the past. Alinta supported this position, expressing a similar view.

Synergy argued that the ERA has not adequately taken into account existing mechanisms that already provide safeguards against discriminatory, unfair or anti-competitive conduct, specifically the *Competition and Consumer Act 2010 (Cth)* (**CCA**).

From a review of the current CCA (and the proposed amendments to the CCA) it is not clear if the CCA is able to deliver similar or improved competition outcomes to the scheme. Cases brought under the legislation firstly have to prove that substantial market power exists and that a company has taken advantage of its market power by engaging in behaviours for an illegal purpose such as eliminating or substantially damaging a competitor, preventing market entry or deterring or preventing competitive conduct.

Proving these behaviours has been difficult in the past. The Harper Review addressed the subject with recommended changes to the section dealing with misuse of market power as noted in section 4.2.2. The Australian Competition and Consumer Commission (**ACCC**) provides guidance for companies on identifying and reducing the risk of breaching the CCA. These include:

- establishing a competition and consumer compliance programme with requirements on specific compliance roles and appointments;
- independent expert reviews of the programme, complaints handling, staff training; and
- reporting material failures to the ACCC.

Investigation and prosecutions under the CCA require one party to bring a case against another, which can take considerable time to execute. The amendments to the CCA need to be finalised and cases investigated under the revised section 46 provisions on misuse of market power before it is possible to understand how the CCA revisions will work in practise. It is not clear whether the changes will result in more or fewer investigations and how outcomes from the investigations will influence competition.

4.2.6. Review Process

The ERA and stakeholders have raised a number of concerns in relation to the effectiveness of the review process employed under the scheme, including the ERA's access to information.

The market rules restrict the use of the information provided under the rules, such that the ERA can only use the information for the WEM review and not for the EGRC review. The ERA is required to access the information it requires for the EGRC review via a section 51 request under the *Economic Regulation Authority Act 2003*. The review process could be simplified and streamlined by amending the market rules to enable the ERA to use the information obtained for the WEM review for the EGRC review.

There is an asymmetry in access to information about the scheme. The scheme was put in place to ensure arm's length dealings between Synergy's business units to maintain competition. Synergy's business units have access to the arrangements that were implemented to meet the requirements of the scheme but the arrangements are not publicly available. Without access to the arrangements, and with little understanding of the scheme,

the level of confidence that stakeholders have in the effectiveness of the scheme may be reduced and stakeholders may be unable to contribute effectively to the review.

Being able to make confidential submissions to the review process is key to ensuring that stakeholders feel confident in making submissions to the ERA regarding the effectiveness of the scheme. The use of an independent complaints process by an independent body that is able to work with participants to address any misunderstandings that they may have regarding the operation of the scheme may be useful in this regard.

4.2.7. Review of draft report

Synergy, in its submission to the ERA's discussion paper, noted that it sees value in introducing a public review period for the draft EGRC regulatory review report to the Minister. Synergy considers that a public review process will create the opportunity to address matters raised in the review and gather evidence to support claims. Synergy considers that this will improve the quality and accuracy of the report submitted to the Minister.

The ERA supports greater transparency in any review process. The draft review process will need to be carefully implemented to ensure that:

- commercially sensitive information belonging to Synergy and its competitors remains confidential to the respective parties;
- increases in the regulatory costs associated with administering a public review process for the draft EGRC regulatory review report to the Minister are limited; and
- there are no delays in publication of the final report, which must be completed in enough time to allow for 21 sitting days before presentation of the reports in Parliament, to ensure publication of the report in the public domain prior to the end of the year following the relevant review period.

Appendices

Appendix 1 Overview of the EGRC Regulatory Scheme

A1.1. The EGRC Regulations

The EGRC Regulations came into effect on 1 January 2014 and include segregation and wholesale trading requirements, and a compliance regime.

A1.2. Segregation requirements

Division of Synergy's operations into segments

The EGRC Regulations require that Synergy divide its operations into segments:

- the Generation Business Unit (**GBU**), comprising operations involving the construction or operation of generating works;
- the Wholesale Business Unit (**WBU**), involving the wholesale acquisition or supply of electricity and the acquisition or supply of wholesale products, including pricing;
- the Retail Business Unit (**RBU**), involving the pricing, sale and marketing of electricity to customers served by the SWIS⁹³;
- shared services operations, including operations relating to corporate planning and strategy, organisational development, accounting, financial and legal matters, human resources, information technology, regulations and compliance, communications, billing, and record keeping. It also includes any other operations undertaken in connection with two or more business units, excluding generation operations, wholesale operations and retail operations; and
- any additional segment(s) approved by the Minister.

Synergy is required to prepare separate statements of financial performance for each business unit, on a quarterly basis and in the annual financial report.

Other segregation obligations

The EGRC Regulations also impose segregation obligations relating to ring fencing and restrictions on information flows between the business segments, which require:

- that retail restricted information⁹⁴ must not be disclosed to retail staff and generation restricted information⁹⁵ must not be disclosed to generation staff;

⁹³ The SWIS includes the interconnected transmission and distribution systems, generating works and associated works, located in the South West of the State and extending generally between Kalbarri, Albany and Kalgoorlie.

⁹⁴ Retail restricted information is defined as information relating to a retail competitor that is obtained by or provided to wholesale staff in the course of the conduct of the wholesale business and might reasonably be expected to materially adversely affect the commercial interests of the retail competitor if disclosed to retail staff.

⁹⁵ Generation restricted information is defined as information relating to a generation competitor that is obtained by or provided to wholesale staff in the course of the conduct of the wholesale business and might reasonably

- that Synergy must develop, implement and maintain controls that limit access to IT systems to ensure compliance with disclosure provisions;
- that staff who receive access to restricted information are made aware of the obligations imposed on Synergy through training conducted at least once a year;
- that wholesale staff are physically separated from generation and retail staff in a secure location; and
- the separation of management roles between the retail, wholesale and generation business units.

A1.2.1. Wholesale trading requirements

Supply arrangements

The EGRC Regulations set out the requirements for the types of wholesale supply arrangements under the Scheme. These are:

- the WBU provides a wholesale supply of electricity to the RBU for retail supply to foundation customers. Synergy does this through its Internal Synergy Wholesale Arrangement;⁹⁶
- the WBU provides a wholesale supply of electricity to the RBU for retail supply to new contestable customers. Synergy does this through its New Load Wholesale Arrangement;⁹⁷
- the WBU provides a wholesale supply of electricity as a customised product (a tailored product) to the RBU or another retail or generation competitor. Synergy does this through its Bilateral Trade Agreement; and
- the WBU provides a wholesale supply of electricity as a standard product to other retail or generation competitors or receives a wholesale supply of electricity as a standard product from other generation competitors. Synergy does this through its Bilateral Trade Agreement for Electricity (Standard Products).

Each of these are explained in more detail below.

Internal synergy wholesale arrangement

The EGRC Regulations require Synergy to have a written arrangement in place before any supply transaction occurs between the WBU and the RBU, for a retail supply of electricity to a customer other than under a new contestable customer arrangement. This written arrangement must state that the transfer price under this arrangement is the foundation

be expected to materially adversely affect the commercial interests of the generation competitor if disclosed to generation staff.

⁹⁶ Foundation customers are contestable and non-contestable customers of Synergy's from prior to the merger.

⁹⁷ A new contestable customer arrangement is an arrangement between Synergy and a contestable customer that imposes a legal obligation on Synergy to supply electricity to the contestable customer on a retail basis and becomes legally binding on Synergy after the merger time.

transfer price i.e. the price determined for that supply in accordance with the foundation transfer price mechanism.⁹⁸

To address this requirement, Synergy has implemented the Internal Synergy Wholesale Arrangement. Synergy made this arrangement in accordance with regulation 11 of the EGRC Regulations, as the foundation transfer price mechanism to apply to the operations of the WBU and the RBU. The transfer prices and pricing mechanisms for the wholesale supply of energy under this arrangement constitute the foundation transfer price for the purposes of regulations 9(1) and (2) of the EGRC Regulations. Section 2 of the Segregation and Transfer Pricing Guidelines (see below) also applies, with energy forecasting and nominations made in accordance with 5.1(3) and 5.1(4).

New Load Wholesale Arrangement

Before any supply transaction is entered into between the WBU and the RBU for a retail supply of electricity to a customer under a new contestable customer arrangement, Synergy must have one or more written arrangements in place to apply to supply transactions of that kind. A written arrangement for supply transactions of this kind must include a mechanism for determining the transfer price (i.e., referred to as an 'additional transfer price mechanism' under the Segregation and Transfer Pricing Guidelines).

To address this requirement, Synergy has implemented the New Load Wholesale Arrangement. Synergy produced this arrangement in accordance with regulations 9(3) and 9(4) of the EGRC Regulations, and section 4 of the Segregation and Transfer Pricing Guidelines.

Bilateral Trade Agreement and Bilateral Trade Agreement for Electricity (Standard Products)

Under regulation 9(6), before any transactions with third parties occur, Synergy must have one or more written arrangements in place that set out the terms and conditions that are to apply to those transactions in place.

To address this requirement, Synergy has implemented two wholesale supply arrangements; i.e. the Bilateral Trade Agreement and the Bilateral Trade Agreement for Electricity (Standard Products).

The Bilateral Trade Agreement addresses regulation 9(6) and is used in the request for quotation process for trading in customised products, including the bilateral trade of electricity, capacity credits and contracts for differences.

The Bilateral Trade Agreement for Electricity (Standard Products) provides for trading in standard products, and addresses requirements in the *Electricity (Standard Products)*

⁹⁸ According to the Merger Implementation Group, the foundation transfer pricing mechanism covers franchise tariffs, contestable tariffs, and existing contestable contracts up to their expiry. This includes contracts signed prior to 1 January 2014, where supply had commenced; contracts signed prior to 1 January 2014, where supply had not yet commenced; formal contract offers made by Synergy prior to 1 January 2014, which the customer accepted prior to 1 April 2014; and any contractual options contained within the aforementioned agreements.

http://www.finance.wa.gov.au/cms/uploadedFiles/Public_Utility_Office/Synergy_and_Verve_Energy_Merger/Market-participants-and-stakeholder-briefing-session-December-2013.pdf

Wholesale Arrangements 2014 and regulation 9(6). The Bilateral Trade Agreement for Electricity (Standard Products) is publicly available from Synergy's website.⁹⁹

Wholesaling obligations

The EGRC Regulations prohibit Synergy from:

- discriminating between its RBU and competitors when offering wholesale supplies; and
- from taking into account the financial interests of the RBU in determining the terms and conditions on which a wholesale supply of electricity is offered to retail or generation competitors.¹⁰⁰

The EGRC Regulations require Synergy to develop a policy for determining the terms and conditions for the wholesale supply of electricity, including processes for assessing the ability of a business to make payments for that supply, and for determining terms and conditions on which the wholesale supply of electricity is to be offered.

Synergy must keep records of each assessment of the ability of a retail business to make payments, each request for a wholesale supply of electricity, the response given to the request, and the documents or other material relied upon in giving the response. Synergy must also record its ability to offer a wholesale supply of electricity at the time of each request, taking into account any contracts, agreements or other supply arrangements entered into by Synergy.

Synergy has published a Wholesale Electricity Supply Policy¹⁰¹ and a Wholesale Energy Credit Policy.¹⁰²

Together, the two policies:

- provide for standard processes for the WBU to respond to requests from customers for the wholesale supply of electricity, including:
 - assessing the ability of the customer to make payments for the wholesale supply of electricity; and

⁹⁹ <http://wholesale.synergy.net.au/Documents/EGRC%20Standard%20Product%20Agreement.pdf>

¹⁰⁰ In relation to this, the financial position of the RBU is to be taken to be the financial position of the EGRC, when assessing the ability of the RBU to make payments for wholesale supply, and the standard processes must not be more favourable to the RBU than to a retail or generation competitor.

¹⁰¹ Synergy's Wholesale Electricity Supply Policy was implemented to meet the requirements of the Electricity Corporations Act 2005, and Regulations 23 and 24 by setting out standard processes to be followed in offering a wholesale supply of electricity to the RBU, a retail competitor or a generation competitor. http://www.synergy.net.au/docs/VMI_EGRCWholesaleElectricitySupplyPolicy.pdf

¹⁰² Synergy's Wholesale Energy Credit Policy was also implemented to meet the requirements of Regulation 23, and sets out the credit processes to be followed for wholesale energy trading activities with approved counterparties, including activities between the WBU and the RBU). The objective of this policy is to safeguard Synergy's financial resources through implementing a credit risk management framework and credit risk control procedures, to minimize credit risk associated with Synergy's wholesale energy trading activities, and ensure that Synergy complies with its non-discrimination and other regulatory obligations. http://www.synergy.net.au/docs/VMI_EGRCWholesaleEnergyCreditPolicy.pdf

- determining the terms and conditions on which the wholesale supply of electricity is to be offered in response to a request, taking into account the customer's ability to make such payments;
- ensure the standard processes are not more favourable to the RBU than another customer when offering a wholesale supply of electricity; and
- outline a response standard for customer requests to the WBU for the wholesale supply of electricity.

Synergy wholesale trading risk policy

Synergy has developed a Wholesale Trading Risk Management Standard that is not required under the scheme. The intent of the policy is to establish effective and appropriate mechanisms for the governance and management of trading risk across Synergy.

Synergy ring fencing policy

Synergy has also developed an internal ring fencing protocol that applies to all Synergy staff. The protocol is designed to ensure that information that relates to a competitor that might reasonably be expected to materially adversely affect that competitor's commercial interests if the information were disclosed is not passed to a business unit that could use that information to obtain an unfair advantage in relation to its competitors.

A1.2.2. Compliance

Under the EGRC Regulations, the Auditor General is required to audit the scheme.

The Auditor General is required to undertake:

- financial year audits, which cover segmentation of Synergy's operations, financial administration, segregation arrangements, wholesaling obligations and wholesaling arrangements; and
- a calendar year audit, which covers certain segregation obligations (disclosure of restricted information, information technology controls, training, separate work areas and separation of management roles).

The Auditor General must give the Minister a report on each of the required financial and calendar year audits and include the opinions formed, and details of any deficiency, failure or shortcoming in respect of the matters referred to in the respective regulations.

The Auditor General must then give a copy of the reports to the Synergy Board and the ERA as soon as practicable after the report is given to the Minister. The Minister is required to table the report in each House of Parliament within 21 sitting days of that House after the day on which the Minister receives the report. There are no provisions for the removal of commercially sensitive matters.

If the Auditor General forms an opinion that Synergy has not complied with one or more provisions of the scheme, it is a function of the ERA to investigate the matter.

Following an investigation, the ERA is able to impose civil penalties for non-compliance with a limited number of regulations. Schedule 1 of the EGRC Regulations specifies these regulations, with civil penalty provisions relating to:

- the division of Synergy's operations into segments;
- the foundation transfer price mechanism;
- disclosure of restricted information;
- the maintenance of separate work areas; and
- discrimination between the retail business unit and competitors when offering a wholesale supply of electricity.

If the ERA considers that Synergy has contravened a civil penalty provision, it may give Synergy a warning notice. Alternatively or in addition to a warning notice, the ERA may impose a civil penalty that does not exceed the maximum of an amount of \$100 000 and, in addition, a daily amount of \$20 000.

In determining the amount of a civil penalty, the ERA must have regard to all relevant matters, including the nature and extent of the contravention and the circumstances in which the contravention took place. The ERA must credit civil penalties to the Consolidated Account.¹⁰³

The ERA can apply to the Western Australian Electricity Review Board to order payment if Synergy does not pay the amount imposed. Additionally, the ERA can enforce an order of the Board by lodging a certified copy of it and an affidavit stating to what extent it has not been complied with in the Supreme Court.

A1.3. Segregation and Transfer Pricing Guidelines

The EGRC Regulations require:

- preparation by Synergy of the foundation transfer price mechanism and revisions to, or replacement of, the foundation transfer price mechanism. This instrument must be given to the Minister (at which time it comes into force) and remains in force until 30 June 2017 or a later day approved in writing by the Minister.
- preparation by Synergy of the additional transfer price mechanisms (i.e., the mechanisms for determining the transfer price for a wholesale supply of electricity by the WBU to the RBU, for a retail supply to a new contestable).

Further requirements addressing transfer pricing and the foundation transfer price mechanism are set out in the Segregation and Transfer Pricing Guidelines, which were gazetted on 30 December 2013 under section 62(1) of the Act.¹⁰⁴ The Segregation and Transfer Pricing Guidelines set out the requirements for the foundation transfer price mechanism and the additional transfer price mechanisms.

¹⁰³ That is, they are returned to Treasury and not retained by the ERA.

¹⁰⁴ The *Segregation and Transfer Pricing Guidelines 2013* are available at: [https://www.slp.wa.gov.au/gazette/gazette.nsf/0/A3B67A09679C1F0148257C4D0081C247/\\$file/gg243.pdf](https://www.slp.wa.gov.au/gazette/gazette.nsf/0/A3B67A09679C1F0148257C4D0081C247/$file/gg243.pdf)

A1.3.1. Original foundation transfer price mechanism

Under the guidelines, the original foundation transfer price mechanism (at the time of the merger) was required to:

- establish terms and conditions to apply to supply transactions for the purposes of retail supply of the foundation load;¹⁰⁵
- establish a procedure that is consistent with the procedure for the RBU making foundation load trading interval forecasts in respect of the foundation load in a particular trading interval;
- provide that the WBU may supply electricity to the RBU only for the purposes of retail supply of the foundation load, in accordance with a foundation load trading interval forecast;
- provide for a foundation transfer price for electricity (in \$/MWh) in a trading interval that is consistent with the modelled cost of electricity to the then Electricity Retail Corporation in that trading interval, based on:
 - existing contracts for the acquisition of electricity by the Electricity Retail Corporation, taking into account the terms and conditions of these contracts and including contracts with the Electricity Generation Corporation; and
 - information contained in the Mid-Year Review prepared by the Electricity Retail Corporation in respect of the financial years ending in each of the calendar years 2013 to 2017;¹⁰⁶ and
- provide a procedure to apply in wholesale force majeure events.

The Segregation and Transfer Pricing Guidelines also include the obligations of Synergy's RBU when submitting foundation and new supply load forecasts for trading intervals, the records it must keep, and how variances should be settled.

Although the foundation transfer price mechanism is provided to the Minister, the foundation transfer price mechanism and the additional price mechanism have not been (and are not required to be) published. However, Synergy has provided a copy of these arrangements to the ERA for the purposes of its review.

A1.4. Standard Product Arrangements

The Standard Product Arrangements were gazetted on 19 May 2014 under section 38(1) of the Act and 26(1) of the EGRC Regulations.

The Standard Product Arrangements specify the products Synergy is required to offer and the minimum quantities that must be made available. Synergy is required to offer both flat and peak standard products on a quarterly and annual basis. Across all product types and

¹⁰⁵ In respect of a period, the foundation load is the aggregate quantity of electricity in MWh consumed during that period by the foundation customers.

¹⁰⁶ For the 2013-14 Government Mid-year Financial Projections Statement, refer to: [http://www.treasury.wa.gov.au/cms/uploadedFiles/Treasury/State finances/2013 14 midyear review.pdf](http://www.treasury.wa.gov.au/cms/uploadedFiles/Treasury/State%20finances/2013%2014%20midyear%20review.pdf)

durations, Synergy is required to offer a minimum 150 MW for sale and 100 MW for purchase.

The standard products must be offered in units of 1 MW (0.5 MWh per trading interval) and Synergy must offer to buy and sell 5 MW per week.

The Standard Product Arrangements specify the percentage spread between the buy and sell price. A maximum buy-sell spread of 25 per cent applied from 1 July 2014 to 31 December 2015. As of 1 January 2015, the maximum spread reduced to 20 per cent.

Synergy is required to publish details of historic prices and update the details on each occasion that it enters into a transaction. Additionally, Synergy must publish and update, on a monthly basis, information on price trends for transactions in standard products.

Synergy is also required to develop and publish details of its procedures for entering into a standard product agreement with an approved counterparty. A number of publicly available procedures have been produced by Synergy to address this requirement,¹⁰⁷ including the:

- Standard Product Agreement, which outlines the process for entering into a standard product agreement and requires that, to transact in standard products, an interested party must (among other things) be a WEM market participant, an approved counterparty, and have entered into a Standard Product Agreement;¹⁰⁸
- procedure for becoming an approved counterparty, which outlines the process that a party must comply with to become an approved counterparty to transact in standard products;
- procedure for entering into transactions, dealing with limited availability and simultaneous offers; and
- carbon referencing price calculation.

Details of the standard products offered by Synergy and standard product transactions are available on Synergy's website.

¹⁰⁷ Refer to the standard product homepage for access to these procedures:
<http://wholesale.synergy.net.au/SitePages/Home.aspx>

¹⁰⁸ For the form of the agreement between the EGRC and an approved counterparty refer to the Bilateral Trade Agreement for Electricity (Standard Products)
<http://wholesale.synergy.net.au/Documents/EGRC%20Standard%20Product%20Agreement.pdf>

Appendix 2 Assessment of market competition

A general framework for competition review (i.e. a structure, conduct and performance paradigm)¹⁰⁹ was employed to review a range of interrelated indicators of competition in the retail and wholesale supply markets, including:

- customer activity;
- barriers to entry, exit or expansion;
- independent rivalry;
- customer outcomes; and
- market outcomes.

Taken together these indicators provide a picture of the market structure and the conduct of its participants.

In a competitive retail market, customers are aware of and can act upon choices that are available to them. Customers actively shop around for lower prices and better services, placing downward pressure on prices and driving retailers to provide the desired quality of service. New retailers are free to enter the market, whilst incumbent retailers can exit or expand within the market, placing competitive pressures on existing retailers to charge prices proportionate to efficient costs and to improve their offerings. With a high level of independent rivalry, retailers compete to attract or retain customers, helping to drive discounting and product innovation.

Analysis of customer and market outcomes provides information on the performance of the market. In competitive retail markets, customers are generally satisfied with the available range of products and their choices, such that switching rates may be low and customers make fewer complaints.¹¹⁰ Retailers may be able to improve their cost effectiveness by reducing their energy supply costs, with any efficiency gains passed through to customers, providing a competitive advantage to the retailer.

The ERA did not rely on one set of indicators to determine the effectiveness of competition in each market. Instead, it analysed the indicators collectively to form a judgement on the overall state of competition in the wholesale and retail markets and to investigate if the merger has impeded competition these markets.

¹⁰⁹ This approach is similar to that adopted by the Australian Energy Market Commissions in reviewing energy retail competition nationally, refer to the 2014 Retail Competition Review, Approach Paper, 17 January 2014, Sydney, <http://www.aemc.gov.au/getattachment/94c068d8-3dbe-49bf-a53a-e976cf942d85/Approach-Paper.aspx>

¹¹⁰ Switching does not necessarily indicate the level of competition in a market because, if customer satisfaction is high, or retailers are focused on retention, there may be less incentive to switch, even in competitive markets.

A2.1. Electricity trading mechanisms in the SWIS

In assessing market competition, four main categories of market participants were considered:

- market customers with a large market share (i.e. greater than 3 per cent) in the contestable retail segment including [REDACTED]
- market customers with a small market share in the contestable retail market including [REDACTED]¹¹¹
- large users, who purchase wholesale electricity directly for their own use, including Karara and the Water Corporation. Some direct purchasers also generate electricity such as Alcoa, Newmont Mining and Tiwest; and
- generators that produce electricity and sell to the wholesale market, including the Collgar and Emu Downs Wind Farm, Vinalco, Synergy, Summit Southern Cross Power, Alinta, and other smaller generators in the market.

In the wholesale electricity market, generators sell wholesale electricity to retailers, who procure the electricity to supply to consumers. To procure electricity, retailers can bilaterally contract with generators, or they can purchase supply through the STEM and balancing markets. Most trade (approximately 91 per cent) occurs through bilateral contracting.¹¹²

Generators can sell and retailers can purchase excess electricity generated beyond that required to meet bilateral contracts through the STEM, which is a day ahead market. Market participants can also settle any imbalances in energy demand or supply after bilateral contracts and STEM sales and purchases, in the balancing market, which is a closer to real time market. For example, if a retailer is short on supply after bilaterally contracting with a generator and purchasing in the STEM, it can purchase the remaining required supply through the balancing market.

In assessing competition in the wholesale and retail sectors, the ERA has reviewed market data and information relating to each participant category, and each market. The ERA sourced the market data and information from Synergy, Western Power and the Australian Energy Market Operator (AEMO).

A2.2. Retail market competition

The contestable retail market comprises customers consuming more than 50 MWh per year. These include small to medium sized businesses and large businesses who can choose their electricity retailer. Customers that consume between 50 and 160 MWh per year can choose to pay a capped rate offered by Synergy (i.e. contestable tariffs or non-contestable tariffs), or they can choose a retailer (including Synergy) to supply their electricity at a negotiated rate (i.e. a contract rate).

¹¹¹ Southern Cross Energy supplies electricity to a small number of mining companies.

¹¹² Including self-nomination.

Synergy is currently the only retailer able to supply non-contestable customers, i.e. residences and small businesses consuming less than 50MWh. Non-contestable customers pay electricity prices regulated by the Western Australian Government under electricity by-laws.

Synergy's 2015 Annual Report noted that it supplied 61 per cent of the total retail market, including contestable and non-contestable market segments.¹¹³ In 2016, in the non-contestable market, Synergy had 100 per cent coverage of residential customers, and 96.9 per cent coverage of business customers.¹¹⁴

In the following sections, there is an explanation of the relevance of indicators used to assess retail competition, a description of how the indicators are measured, and an assessment of those indicators. The ERA has assessed each indicator for the market as a whole, and where possible, has considered the outcomes for Synergy individually.

A2.2.1. Independent rivalry in the retail market

To assess independent rivalry, the ERA considered:

- changes in the number of retailers active in the market;
- retail market share (in terms of energy volume sales); and
- market concentration as indicated by the Herfindahl-Hirschman Index.

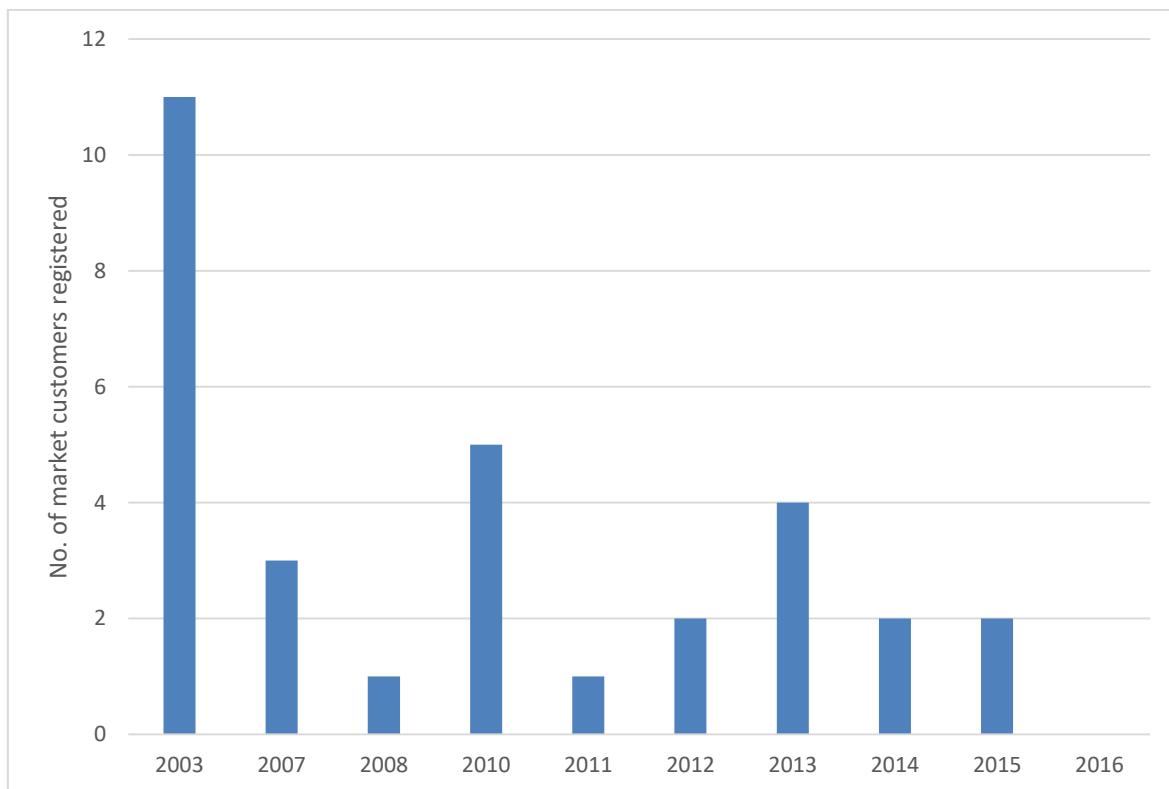
Overall analysis of independent rivalry in the retail market indicates that there are signs of increasing competition between retailers in the contestable segment. The increase in competition has accelerated since the merger. Based on the Herfindahl-Hirschman Index, retail market concentration has recently dropped below the moderately concentrated threshold. However, competition in the contestable retail market is predominantly occurring between six main participants that also own generation assets and have the capacity to self-hedge. There has been no growth in the market share of small retail market participants.

Market customer registration

Figure A1 shows the number of new market customer registrations during the 2003 to 2016 period. Four new customers entered the market since the merger in 2014. No new market customer was registered in 2016. Out of the 31 market customers registered, five customers were direct purchasers of energy.

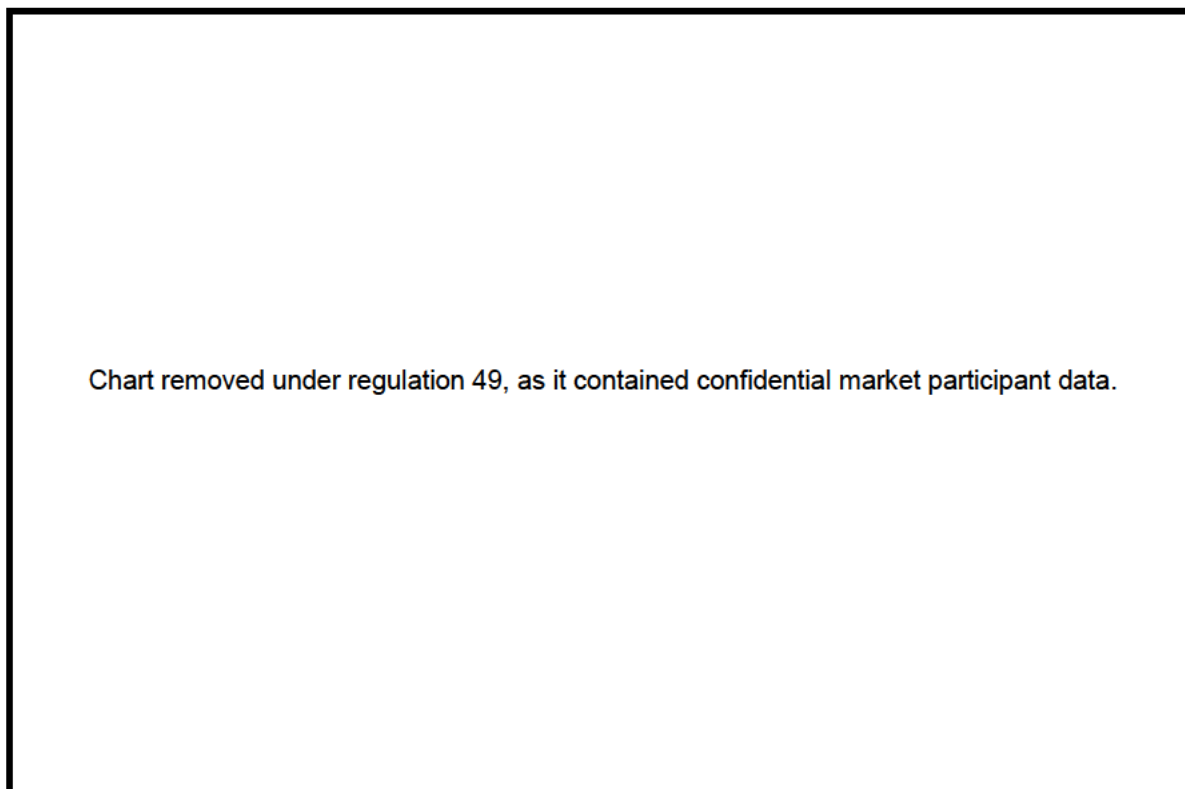
¹¹³ See page 5. <https://www.synergy.net.au/About-us/News-and-announcements/Annual-reports/Synergy-2015-annual-report>

¹¹⁴ Alinta Energy, AER Retail, Amanda Energy, Kleenheat and Perth Energy share the remaining 3.1 per cent of business customers. See Economic Regulation Authority (2017) 2016 Annual Performance Report: Energy Retailers, Economic Regulation Authority, Page 39, available in <https://www.erawa.com.au/cproot/17079/2/2016%20Annual%20Performance%20Report%20-%20Energy%20Retailers.pdf>

Figure A1. Number of new market customers registered (2003–2016)

Contestable market share

Figure A2 shows that, since the merger, demand for energy has plateaued in the contestable market. Synergy has generally lost market share since market commencement.

Figure A2. Contestable market share (based on consumption)

Since 2007, the average growth rate in the contestable market was 5.3 per cent per annum.¹¹⁵ During the same period, Synergy's market share has [REDACTED]. The decrease in Synergy's sales over time is partly due to customers in the contestable retail market transferring (i.e. switching) to competing retailers.

Most of the fall in Synergy's retail sales has accrued to [REDACTED].

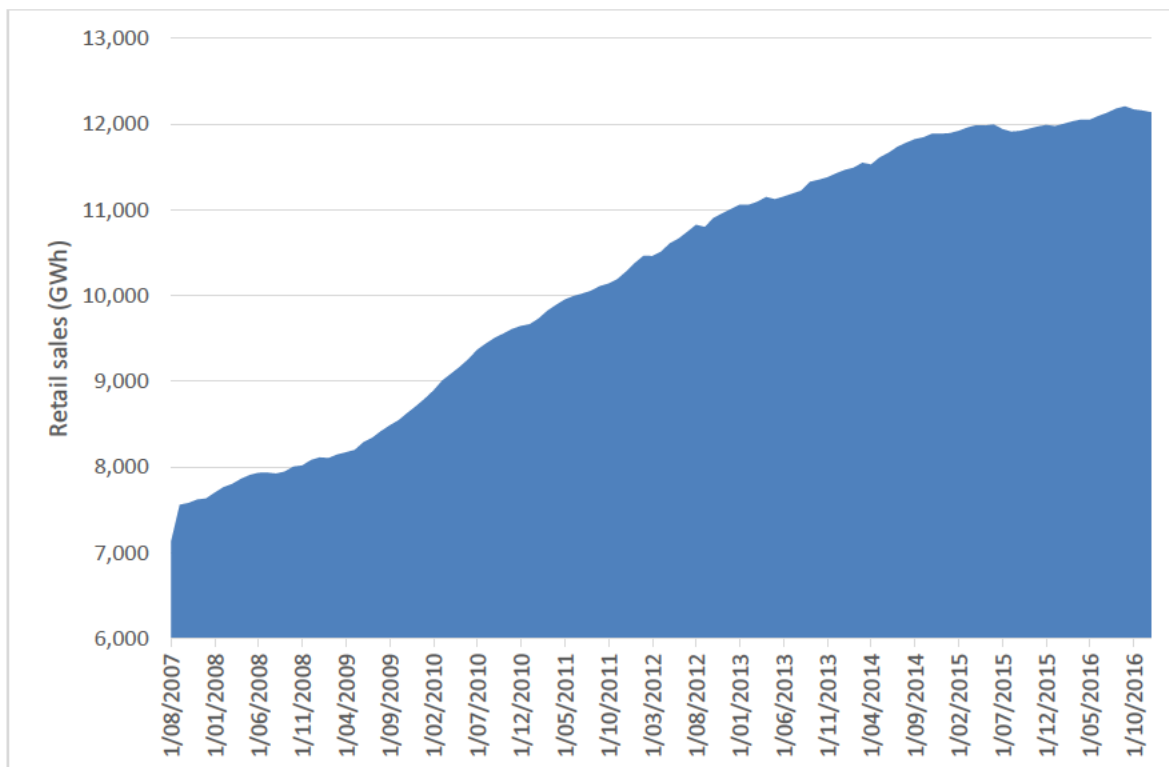
Competition in the contestable market is predominantly limited to six major retailers. In December 2016, less than two per cent of the energy in the contestable retail market was traded by nine small participants (see Figure A2).¹¹⁶

Contestable market sales volume

Figure A3 illustrates the size and composition of the contestable retail market based on participant consumption data for the period 2007 to 2016. To reduce distortions from seasonal effects and one off changes, a 12 month rolling total consumption is depicted. This approach may however, cause changes in retailer sales (e.g. that occur when a retailer enters the market) to appear slower than may have occurred in the first 12 months of data.

¹¹⁵ Based on an annually compounded growth rate estimation.

¹¹⁶ During 2014–16, four new market customers were registered in the WEM. Out of 32 registered market customers, 12 participants never traded in the market.

Figure A3. Contestable market sales volume (12-month rolling total)¹¹⁷

The contestable segment of the retail market has increased consistently from market commencement. However, in recent years, growth has slowed. Direct purchasers, with an approximate 42 per cent average annual growth rate, have accounted for most of the increased sales since 2007.¹¹⁸ Direct purchasers do not participate in the retail market in the same way as other retailers. They purchase electricity directly from the WEM for their own consumption.

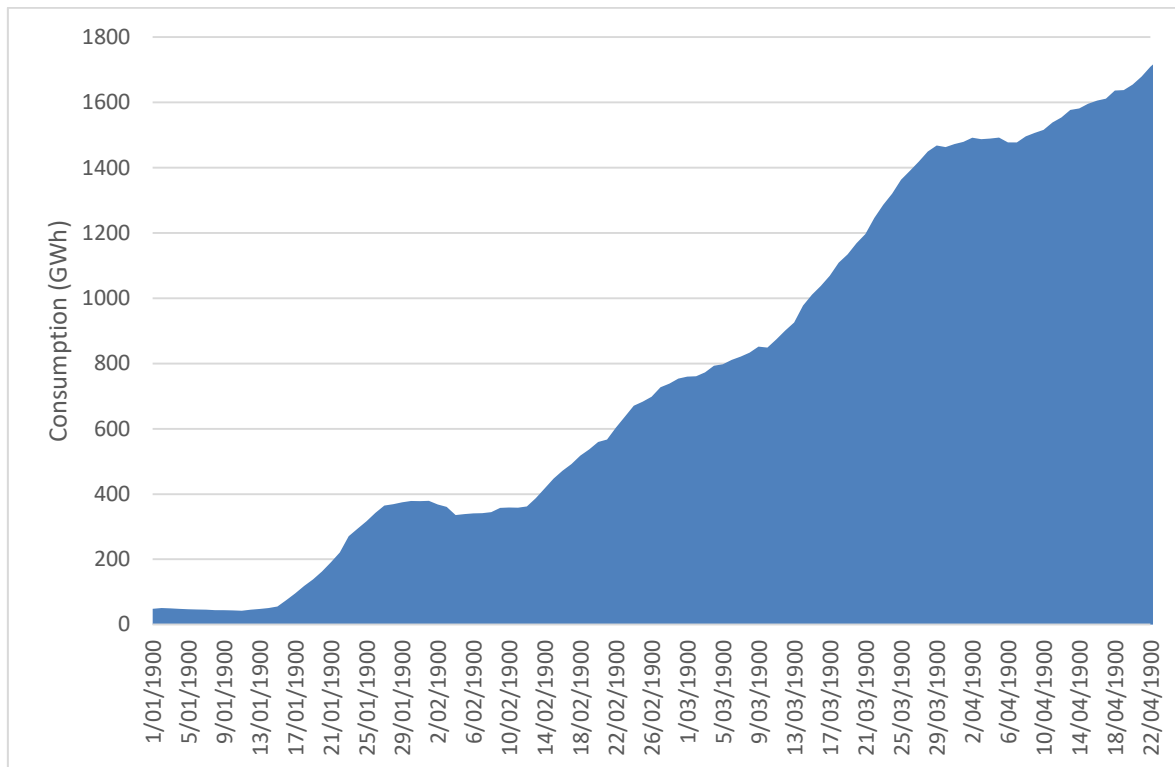
During 2016, the largest growth rate in terms of market share was by [REDACTED] and direct purchasers (11.3 per cent).

Direct purchasers

Figure A4 illustrates direct purchaser consumption since market commencement.

¹¹⁷ Chart aggregated as it contained confidential market participant data.

¹¹⁸ Based on an annually compounded growth rate estimation of market shares.

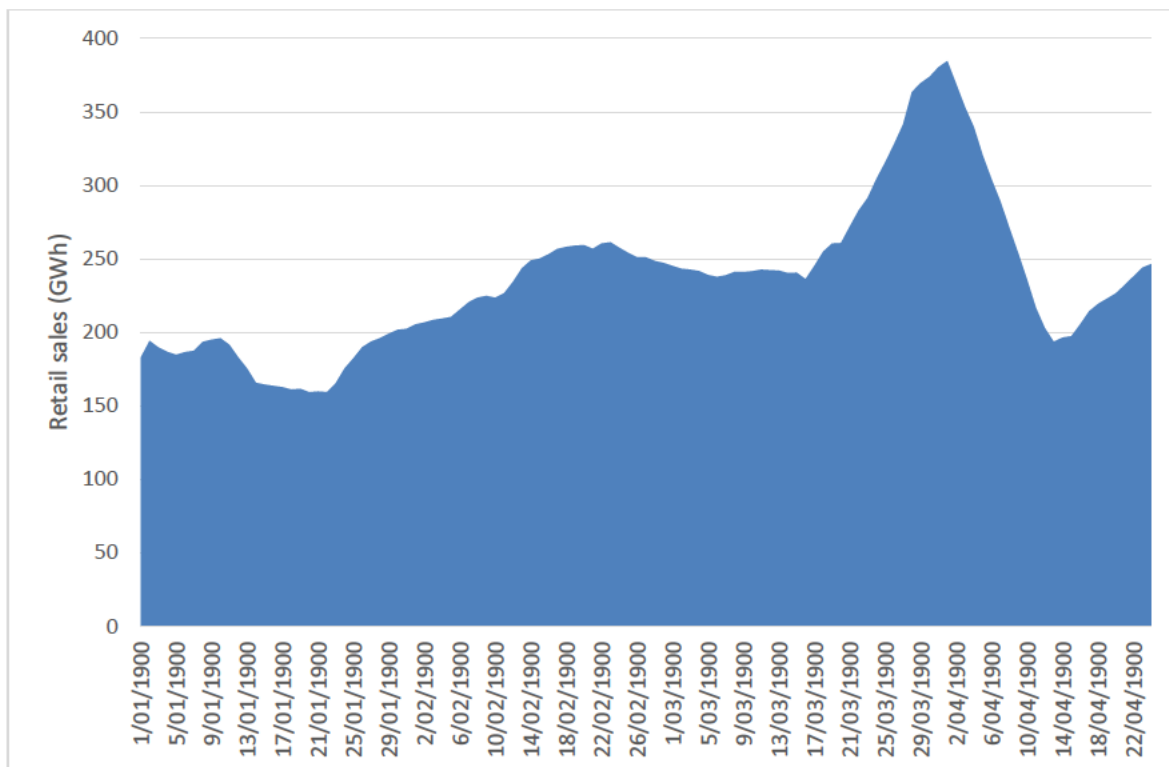
Figure A4. Direct purchaser consumption (12-month rolling total)¹¹⁹

Direct purchaser consumption has increased since market start. It increased markedly from 2012 and continued through 2016. By the end of 2016, direct purchasers represented around 14 per cent of the total contestable market.

Small retailers

The ERA considers retailers with less than three percent market share as 'small retailers'. Figure A5 illustrates small retailer sales over time.

¹¹⁹ Chart aggregated as it contained confidential market participant data.

Figure A5. Small retailer energy sales (12-month rolling total)¹²⁰

Small retailer sales represent a small proportion (approximately two percent) of the contestable market. Small retailers' sales have fluctuated over time, increasing rapidly in 2014 and then decreasing rapidly through 2015. Most increases or decreases in sales for small retailers have resulted from losing customers to, or gaining customers from, large retailers (respectively). There has been little exchange of customers between small retailers.

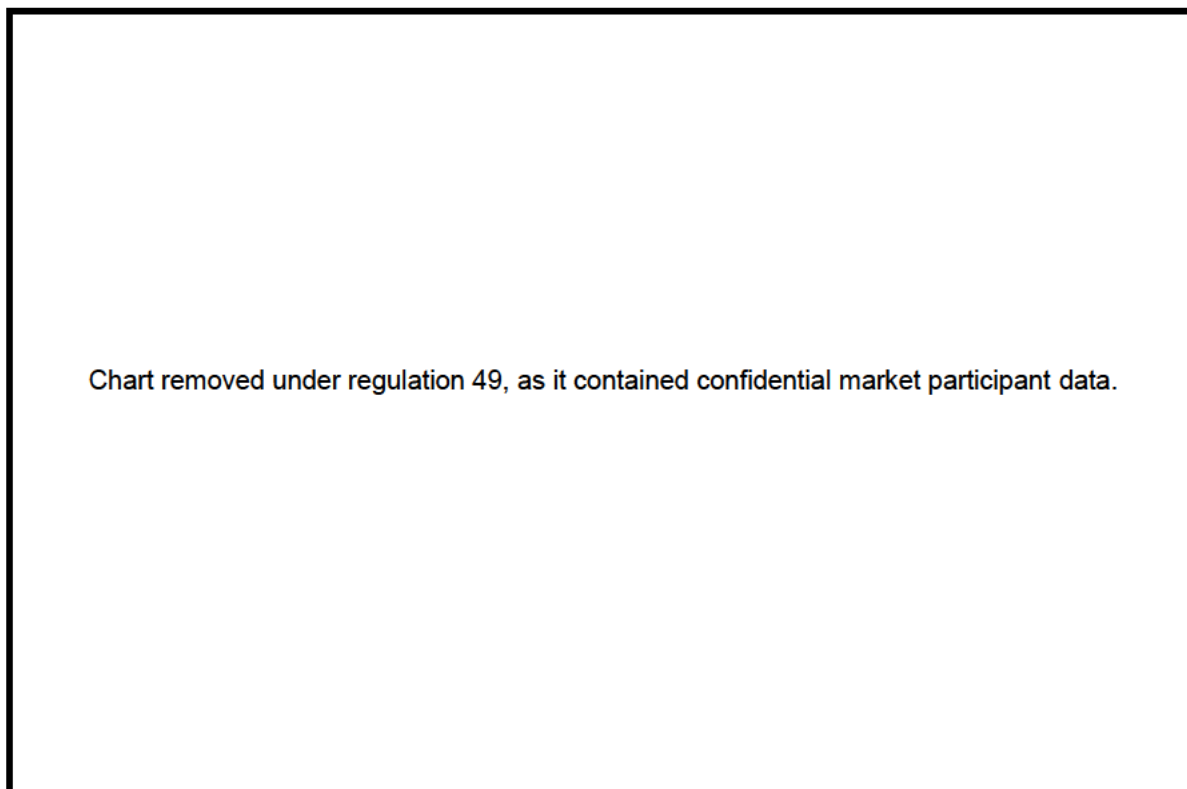
During 2015, [REDACTED] sales volume decreased substantially¹²¹, bringing the total share of small retailers down to approximately 250 GWh.

Synergy's market share

Synergy's sales have steadily decreased since market start. Figure A6 shows Synergy's sales in the contestable and non-contestable segments of the market since market commencement.

¹²⁰ Chart aggregated as it contained confidential market participant data.

¹²¹ The reason for [REDACTED] decrease in sales is not available to the ERA.

Figure A6. Energy sales for Synergy (12-month rolling total)

Synergy's sales have declined in both contestable and non-contestable market segments. Synergy's total sales have decreased by an average of [REDACTED] per annum since 2007. Contestable sales decreased at a greater rate ([REDACTED] per year) than non-contestable sales ([REDACTED] per year).¹²²

Retail market concentration

The Herfindahl-Hirschman Index is a measure of market concentration. It is determined by summing the squares of the individual participants' market shares. The higher the index, the higher the degree of market concentration. Markets with an index below 1,500 are considered to be un-concentrated. Markets with an index of between 1,500 and 2,500 are considered to be moderately concentrated. Markets with an index above 2,500 are considered to be highly concentrated.¹²³ The ACCC merger guidelines use a post-merger index threshold of 2,000 or a change in the index of 200 in markets with a Herfindahl-Hirschman Index above 2,000 to indicate potential merger competition concerns.¹²⁴

Figure A7 shows the Herfindahl-Hirschman Index for the retail market calculated based on the amount of energy sold in the whole market and the contestable market. Non-

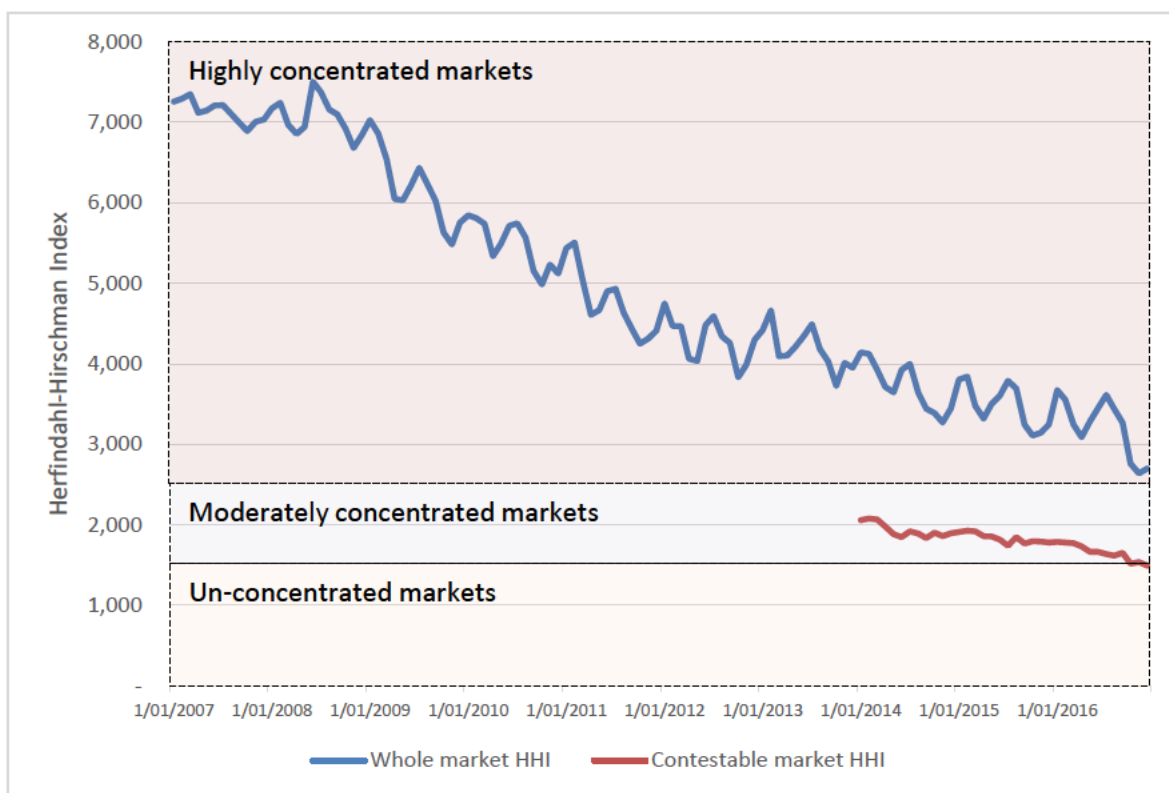
¹²² Based on an average annually compounded growth rate.

¹²³ US Department of Justice and Federal Trade Commission (2010) Horizontal Merger Guidelines, Federal Trade Commission, Washington, p19 available from <https://www.ftc.gov/sites/default/files/attachments/merger-review/100819hmg.pdf>

¹²⁴ ACCC (2008) Merger Guidelines, ACC Canberra, p37 available from <https://www.accc.gov.au/system/files/Merger%20guidelines.pdf>

contestable market sales have been included in the whole market to provide a complete view of market concentration.

Figure A7. Herfindahl-Hirschman Index of retail market (whole market) and the contestable segment



The level of concentration in the market as a whole, i.e. including non-contestable sales, has declined steadily over time. There is also a declining trend in the contestable retail market, with the Herfindahl-Hirschman Index recently reducing below the moderate concentration threshold and becoming un-concentrated.

Summary:

- The level of rivalry among major market customers has increased since the merger.
- Synergy's share of energy in the contestable segment has continued to decline since market commencement.
- Small retailers represent approximately two per cent of the market. There has been no growth in the market share of small retail market participants.
- Using the Herfindahl-Hirschman Index, the level of concentration in the retail market as a whole (including both contestable and non-contestable sales) is above 2,500 and is thus highly concentrated.

However, it is trending toward moderate concentration. The contestable market is un-concentrated.

A2.2.2. Customer activity in the retail market

To assess competition in the retail market, customer activity was examined through consideration of customer churn (i.e. customer transfers between retailers), customer engagement in choosing offers, and customers changing plans within Synergy.

The analysis of customer activity in the contestable segment shows that after the merger the total number of customer churns (based on National Meter Identifier (NMI) numbers) among market participants has increased overall. Since mid-2015, the rate of net customer churn from Synergy has substantially declined (refer to Figure A9).

Customer transfers and churn rates

Figure A8 shows annual NMI transfers and churn rate since market commencement.

Figure A8. Annual Number of NMI Transfers and churn rates (2006–2016)



Following the merger, the average number of annual transfers increased by approximately 700 switches to 2,177 NMIs per year.¹²⁵ Since 2009, the proportion of customers actively

¹²⁵ When compared to the three year period immediately preceding the merger.

switching their energy retailer, i.e. the churn rate, has stabilised at around five per cent from an initial rate closer to ten per cent.

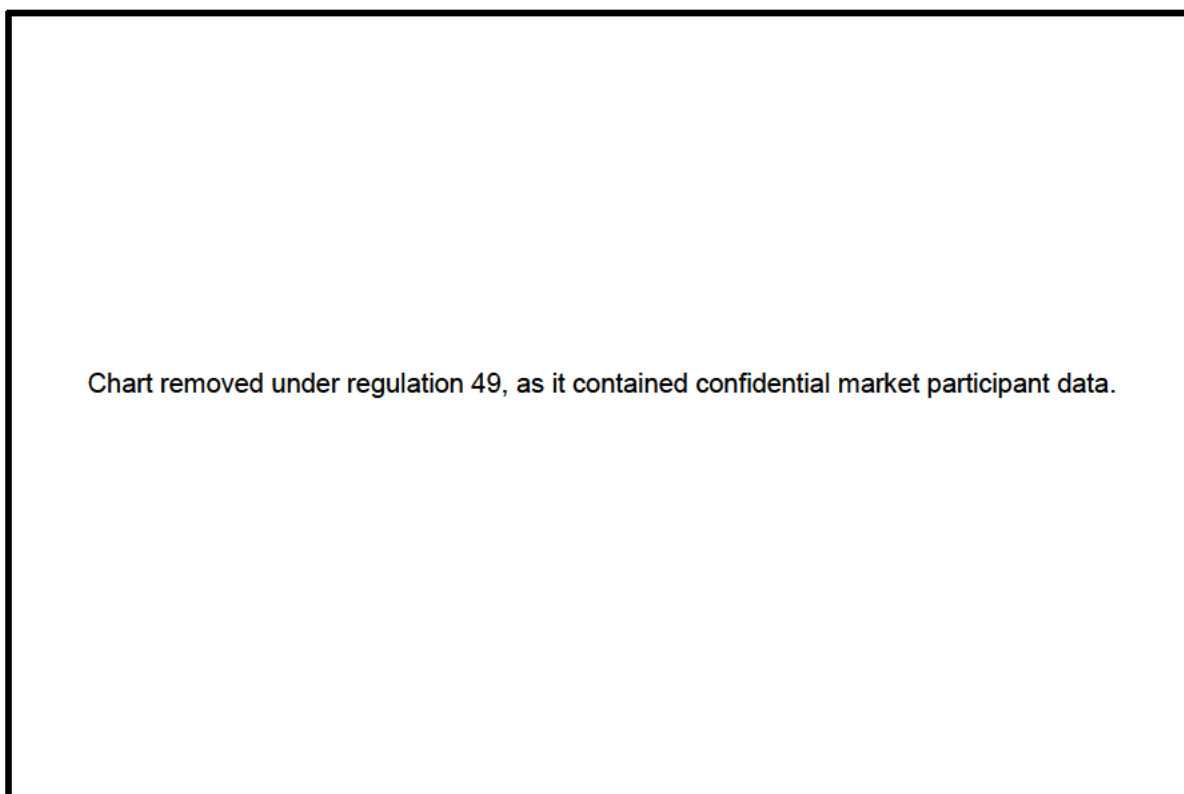
The number of customers switching their supply arrangements is an indicator of competitive activity on the supply side and market participation on the demand side. However, churn numbers alone are not a good indicator of market competition. The number of transfers between retailers is influenced by the degree of market maturity. For instance, during the early stages of market formation, customers first exercise choice and as such, more transfers are expected to occur, as compared to a mature market.

The number of NMI's registered (which is increasing in the SWIS) and customers' perceived cost of searching for a new retailer may also influence churn.¹²⁶ Additionally, in a competitive market with low product differentiation and prices close to market equilibrium, customers will have little incentive to transfer between retailers. When retailers are focused on retention, there may also be less incentive to switch.

NMI transfers from Synergy

Figure A9 illustrates the net number of NMI transfers to and from Synergy, from market start.¹²⁷

Figure A9. Net transfers and cumulative transfers to Synergy (based on NMI)



¹²⁶ For a discussion of customer switching in the electricity retail markets refer to: Toby Daglish, Consumer governance in electricity markets, Energy Economics, Volume 56, May 2016, Pages 326-337.

¹²⁷ A negative net transfer indicates that more NMI's transferred away from Synergy than to Synergy, whilst a positive net transfer indicates that more NMI's transferred to Synergy.

With the exception of short periods in 2008–09 and 2012–13, Synergy has consistently lost more customers to competitors than it has acquired. In 2016, Synergy's customer base appeared to stabilise when compared to the preceding three years.¹²⁸

An analysis of Synergy's customer account movements over time shows that most customers churned to the contestable contract product category. About half of all Synergy's customer account movements were from contestable and non-contestable tariff accounts towards contestable contracts. The increasing number of Synergy's customers choosing a contestable contract (or renegotiating a contract) may be due to [REDACTED] or Synergy customers transferring out of tariff-based products.

The number of NMI transfers from Synergy to competitors increased following the merger of Synergy and Verve Energy in 2014. However, the number of transfers declined in 2016 from a peak in 2015 (i.e. [REDACTED] transfers) to pre-merger levels observed in 2013 (i.e. [REDACTED] transfers). The rate of net customer churn from Synergy remained largely unchanged following the merger. From early 2016, the net customer churn from Synergy has since stabilised.

Figure A10 shows the annual number of NMI transfers from Synergy to other market participants since the inception of the WEM. The actual numbers for the top five retailers with the highest churn are provided in this figure, whilst the numbers for the remaining retailers have been aggregated, as they each include less than [REDACTED] over the relevant period.

Figure A10. Number of NMI transfers from Synergy to other market participants (2006 – 2016)

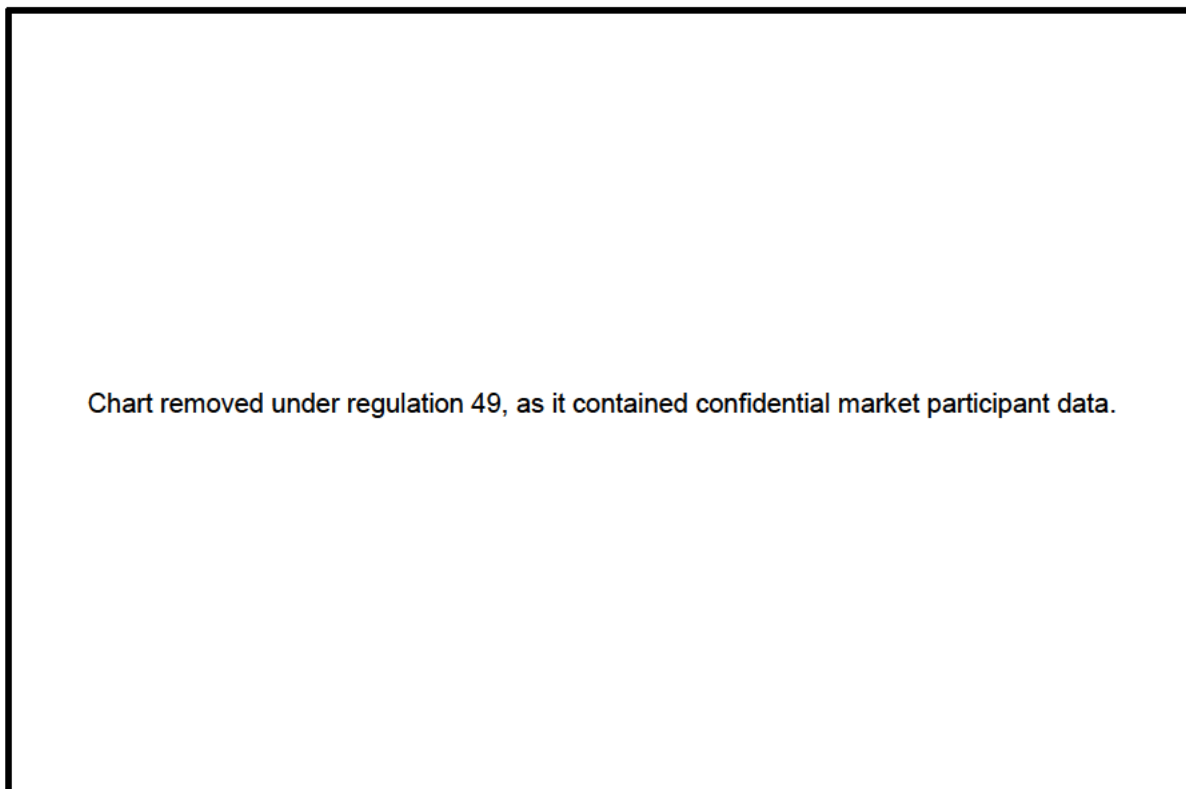
Chart removed under regulation 49, as it contained confidential market participant data.

¹²⁸ Synergy experienced a net loss of [REDACTED] NMIs during 2016.

An inspection of the annual number of NMI transfers from Synergy to other market participants shows that the majority of consumers who switched from Synergy, transferred to [REDACTED]

The annual number of NMI transfers from other market participants to Synergy is shown in Figure A11. The actual numbers for the top three retailers with the highest churn to Synergy are provided, whilst the numbers for the remaining retailers are aggregated.

Figure A11. Number of NMI transfers to Synergy from other market participants (2006–2016)



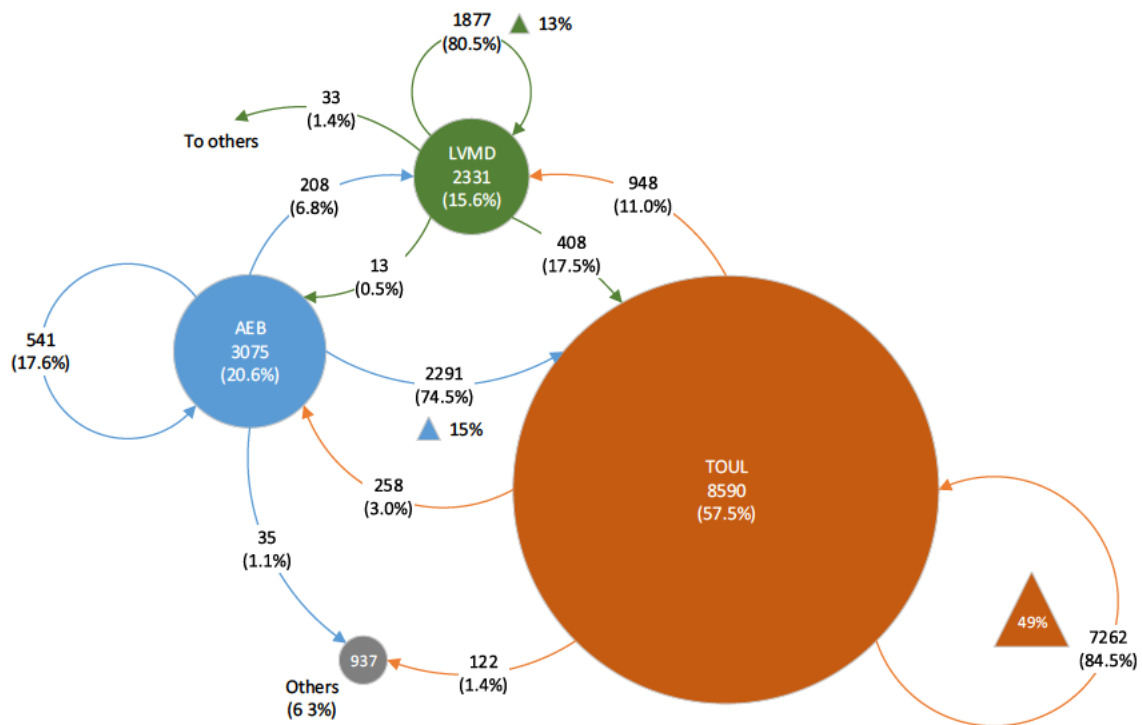
Compared to the three year period preceding the merger, the total number of transfers to Synergy in the post-merger period increased slightly, mostly in 2015 and 2016. Historically, the bulk of transfers to Synergy were from [REDACTED]

Customer engagement in choosing offers

From 2006 to 2016, more than 14,900 customers transferred between electricity retailers. Transfers between Time of Use Large (TOUL), Anytime Energy Business (AEB), and Low Voltage Metered Demand (LVMD) tariffs (including transfers to the same tariff type) were the most common transfers in the SWIS.¹²⁹ The transfer of NMIs among these different tariff structures in the SWIS is depicted in Figure A12.

¹²⁹ These are Western Power's network tariff categories.

Figure A12. Number of NMI transfers based on tariff types (2006–2016)*

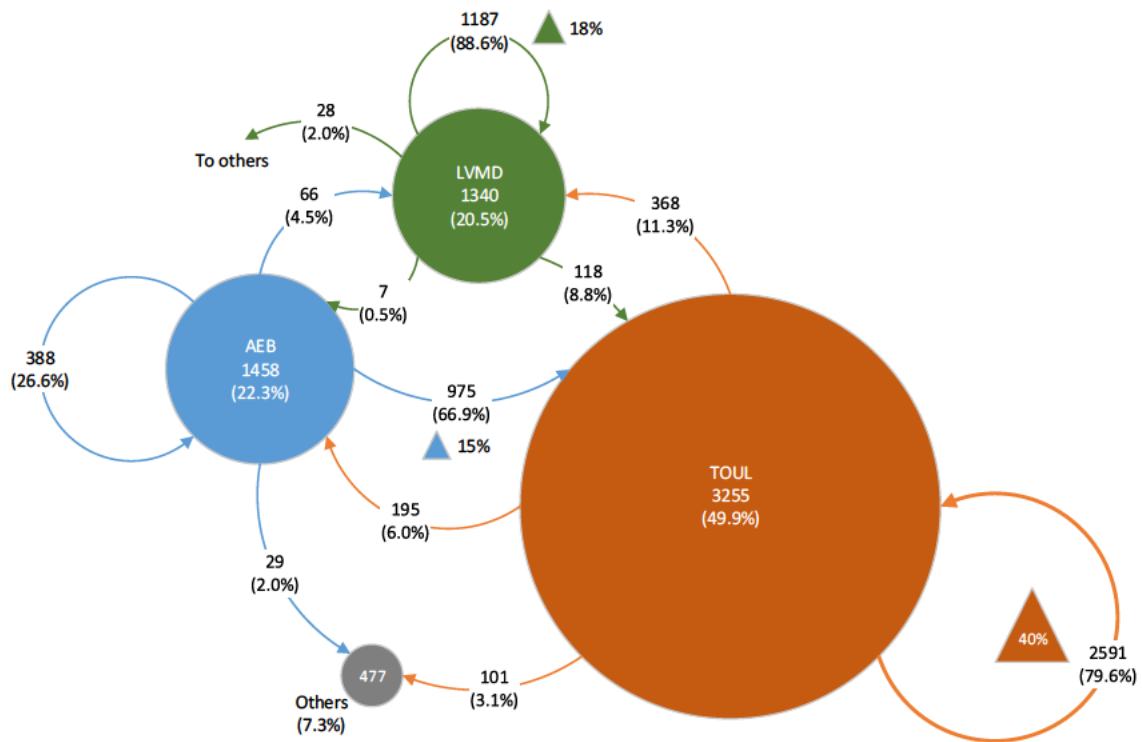


*Note: Numbers within tariff type nodes represent the total number of switches from the relevant network tariff. For instance, 8,590 NMIs switched from a TOUL tariff structure (representing 57.5 per cent of all transfers in the market). Numbers on connecting curves represent the number of transfers from a tariff type to another tariff type. For instance, 7262 NMIs switched from TOUL to TOUL (representing 84.5 per cent of all transfers from TOUL tariff type). Other tariff types (Others) are shown as an aggregated node. The three largest NMI transfers, as a percentage of total transfers, are illustrated by scaled triangles.

Around two thirds of transferring customers (i.e. about 69 per cent) switched to the same tariff structure with their incoming retailer as with their outgoing retailer. Transfers from TOUL (including both TOUL to TOUL, and TOUL to other tariff types) were the most common among the entire transfers in the market. Transfers from the AEB tariff type to TOUL were the second most common switch in tariffs in the market.

The overall proportion of tariff transfers in the market following the merger of Synergy and Verve Energy is depicted in Figure A13.

Figure A13. Number of NMI transfers based on tariff types (2014–2016)*



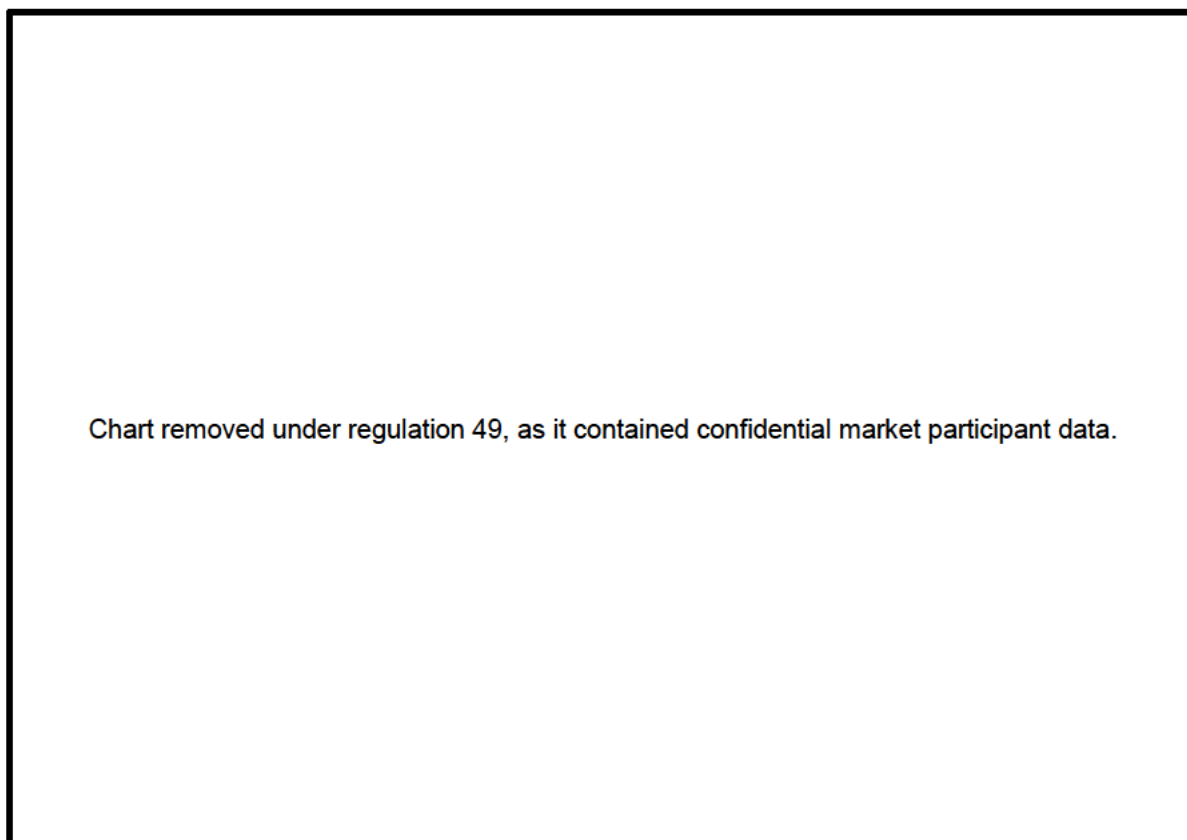
*Note: Refer to note to Figure A12.

The overall proportions of tariff transfers between the different tariff types in the market following the merger are relatively similar to those observed prior to the merger. However, as Figure A13 shows, the overall share of TOUL transfers has decreased to 49.9 per cent, while the share of transfers from the LVMD tariff type (20.5 per cent) has increased.

Customers changing plans within Synergy

Synergy’s electricity customer accounts are categorised as non-contestable tariff, contestable tariff, and contestable contract. Figure A14 depicts the number of customer accounts who changed their electricity plans between the three categories during the period from 2014 to 2016.

Figure A14. Number of Synergy's customer account movements between different product categories (2014–2016)*



*Note: Numbers within product category nodes represent the total number of customer account switches from the relevant tariff (except for churn out, which illustrates the total number of churn outs). For instance, [REDACTED] customer accounts switched from a contestable contract product category. Numbers on connecting curves represent the number of transfers from a product category to another one. The three largest account movements between categories, as a percentage of total movements (excluding renegotiated contracts), are illustrated by scaled triangles. Number of renegotiated contracts is for the period 2014–February 2017.

As shown in Figure A14, from 2014 to 2016 more than [REDACTED] of Synergy's customer accounts transferred their energy use between or within different product categories offered by Synergy. During the same period, more than [REDACTED] of Synergy's customer accounts transferred their energy consumption to other retailers in the market.

The contestable tariff product category was the most active when considering the number of outgoing movements. This category of products accounted for [REDACTED] of all outgoing movements. In comparison, [REDACTED] of accounts switched to a contestable tariff product category. Most of the movements from the contestable tariff category were to contestable contracts, followed by churns to other retailers in the market.

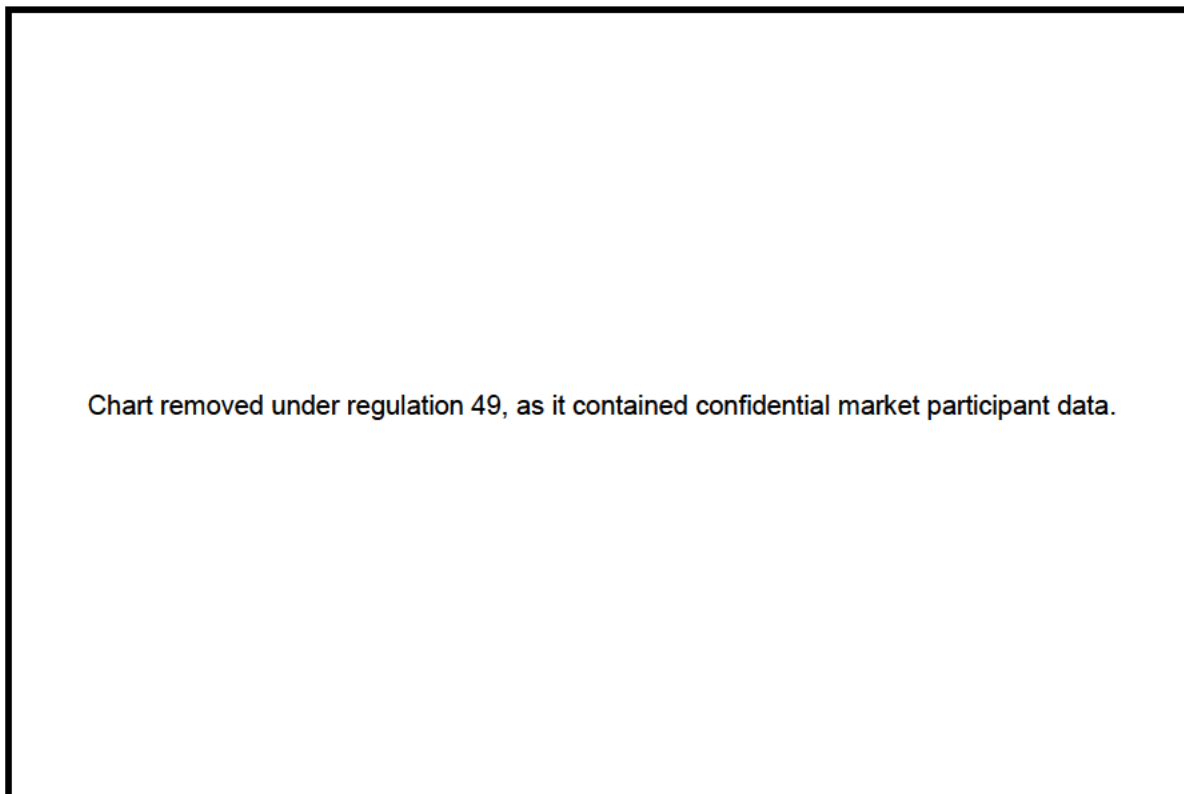
The product category that received the most churns was the contestable contract category. About [REDACTED] account movements (excluding renegotiated contracts) were towards a contestable contract.

When comparing category movements, switches from contestable tariff products to contestable contracts was the most common movement. Once customers switch to contestable contracts, they either switch between different contestable contracts, renegotiate their contract product category, or transfer to a contract with a retail competitor.

█ of customer accounts on a contestable contract (i.e. █ accounts) switched to contestable and non-contestable tariffs.

Further inspection of customer account movements shows that the number of transfers peaked in 2015 (█ transfers) and subsequently decreased (to █ transfers) in 2016. Figure A15 shows annual customer account movements after the merger.

Figure A15. Changes per year in the annual number of Synergy's customer account movements between different product categories (2014–2016)*



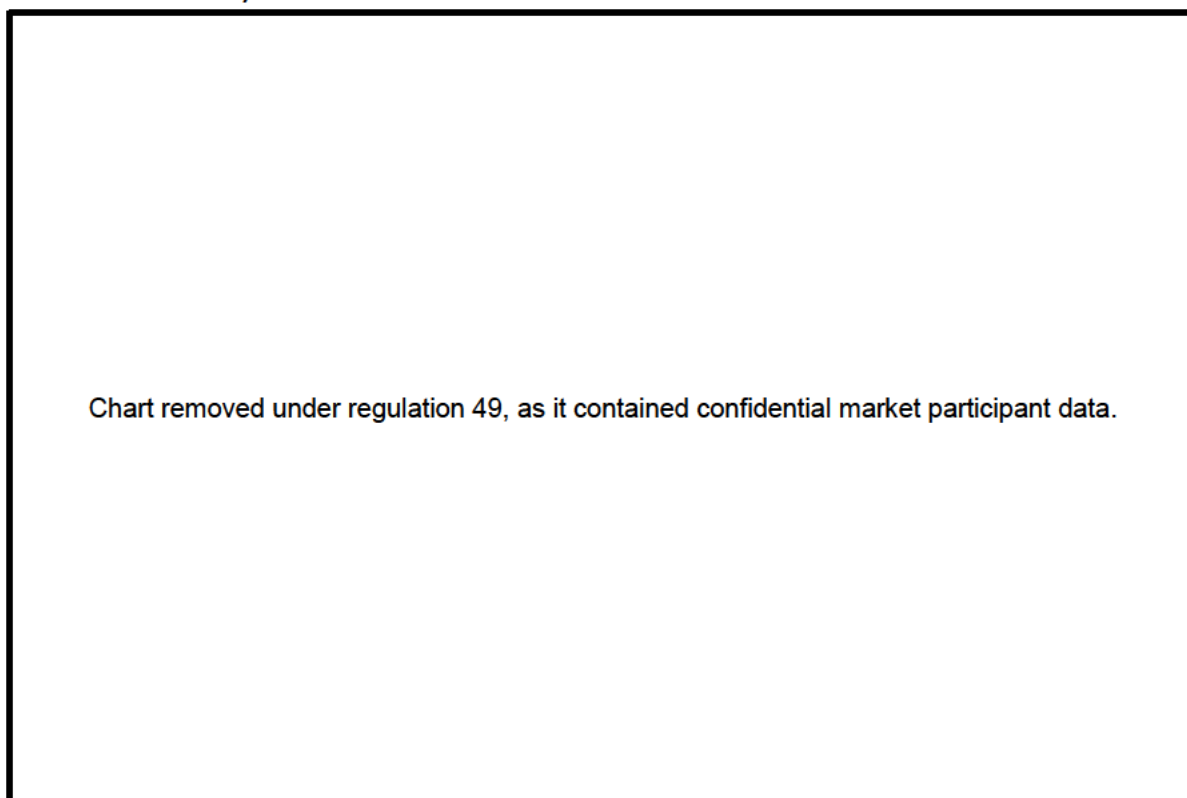
* Note: Customer movement categories are sorted (ascending from left to right) based on total number of movements during the 2014–2016 period.

In 2015 the total number of churns away from Synergy peaked at █ accounts, whereas in 2016, it decreased to █ accounts. The observed decline was the result of significant decreases in the number of account churns from contestable and non-contestable tariff categories.

Figure A16 and Figure A17 show annual revenue and energy consumption changes from customer account movements since the merger. Among the range of revenue streams associated with different product category movements, █

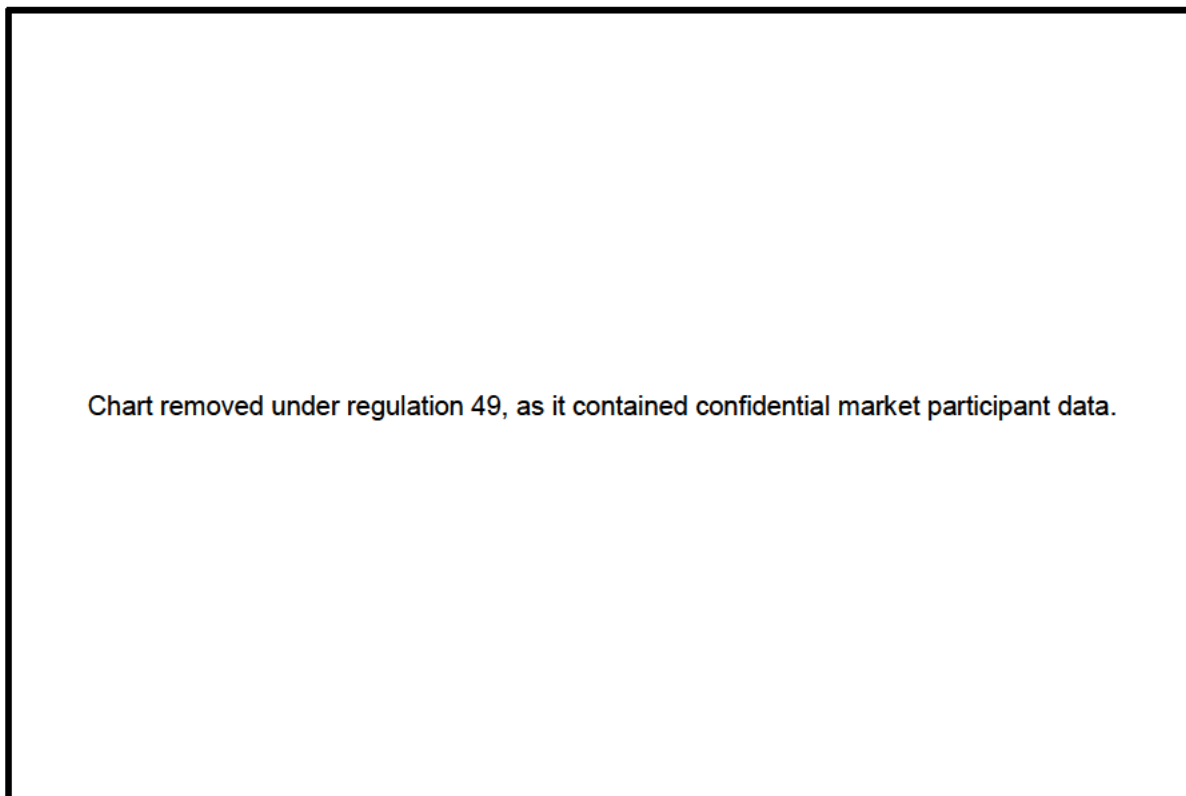
The increasing █ (as shown in Figure A17).

Figure A16. Synergy's annual revenue transfer due to customer account movements (2014–2016)*



* Note: Customer movement categories are sorted based on the associated total revenue during the 2014–2016 period.

Figure A17. Synergy's annual energy consumption transfer due to customer account movements (2014–2016)



* Note: Customer movement categories are sorted based on the associated total consumption during the 2014–2016 period.

After the merger of Synergy and Verve Energy in 2014, Synergy's customer movements between different product categories increased. Despite an overall increase since 2014, the total number of inter-category movements and churn outs peaked in 2015. [REDACTED]

The observed increased activity in the market indicates that the depth of competition in the market has increased during the post-merger period.

Summary:

- The activity of customers in the contestable market (with measures based on NMI transfers between different market customers) decreased after the merger. Only five per cent of customers chose to switch their energy retailer.
- Based on NMI numbers, the rate of Synergy's net loss of customers slowed substantially after the merger.

- Analysis of Synergy’s customer account movements shows that most product movements were from contestable and non-contestable accounts towards contestable contracts.¹³⁰

A2.2.3. Barriers to entry, exit or expansion in the retail market

In the SWIS, electricity retailers buy electricity in the wholesale markets and package it with network services for sale to customers. While the contract of sale with the end-user of energy is usually based on a long-term flat price, a retailer faces volatile prices in the wholesale markets day-to-day.¹³¹ As such, significant exposure to volatile electricity prices in the STEM and balancing markets can weaken the financial solvency of retailers in the WEM. Increased volatility has been observed in the energy markets, particularly in the latter half of 2016, increasing the need for risk management and hence risk management options in the market (see section below).

Retailers can manage their exposure to electricity price risk through different hedging arrangements:

- Customised bilateral contracts with Synergy’s WBU;
- Bilateral contracts with other generators in the market;
- Standard products market (as offered by Synergy’s WBU); and
- Self-generation.

Synergy has a significant generation market share, which limits the choice of retailers in terms of access to wholesale supplies and pricing of wholesale supplies. Under the Bilateral Trade Agreement, customised bilateral contracts are offered by Synergy. Although such contracts are tailored to the needs of market participants, Synergy exercises discretion in setting prices and accepting the transaction terms as requested by a market participant.¹³²

Customised contracts are negotiated privately and so the pricing of these products is not transparent. As the bilateral contracts offered by Synergy cannot be traded, market participants cannot easily enter into or exit from hedging positions offered by those contracts. Illiquidity and lack of price transparency in customised contracts can create a barrier to entry for new entrants to the market.

¹³⁰ Customers may move from a non-contestable to a contestable contract if their consumption level passes the threshold.

¹³¹ The volatility observed in the WEM is less than that observed in an energy only market such as the NEM, due to the capacity market.

¹³² In the ERA’s previous reviews it noted that Synergy’s Wholesale Electricity Supply Policy provides it with significant discretion in determining pricing and other terms and conditions for a RFQ. For example, whilst section 8 of the policy outlines the approach and the considerations that Synergy must take into account when determining pricing and other terms and conditions for an RFQ, it can also take into account any other conditions considered to be relevant. See: <https://www.synergy.net.au/About-us/Who-we-are/What-we-do/Wholesale-Business-Unit>.

Synergy continues to be the largest supplier in the market, supplying around three quarters of the total wholesale market, through its own generation or via long-term contracts with other generators (see section A2.3.1). Gentailers smaller than Synergy use their own generation for hedging, leaving limited options for contracting for retailers who do not own their own generation assets.

The standard products regime was developed to provide competitive and transparent price signals and as a hedging option for all market participants. However, despite the increasing market price volatility, the standard products regime is largely illiquid and appears not to have provided hedging options for potential new entrants to the retail market. The design of the standard product regime (including the force majeure provisions and the spread) and the characteristics of the products offered do not appear to be well suited to the requirements of the participants. A detailed analysis of the current arrangements in the standard products market is provided in section 2.4).

As noted in section A2.2.1, apart from Synergy, a limited number of retailers with self-generation retain the highest shares in the market. Although all retailers have the opportunity to invest in generation assets to manage their energy retail risk, such an option is capital intensive and may create a barrier to entry for small participants in the market.

The scheme provides wholesale arrangements as the main mechanism for inhibiting the exercise of market power by Synergy, and hence, for eliminating barriers to entry, exit, or expansion in the retail market. Under the wholesaling arrangements Synergy's WBU is obliged not to discriminate between the RBU and competitors when offering wholesale supply. The scheme also requires that Synergy provides standard products.

The Auditor General's financial and calendar year reviews indicate that Synergy has complied in all material respects with its obligations under the scheme. Thus, whilst Synergy is compliant with the scheme's requirements, barriers to entry, exit and expansion still appear to exist in the retail market, to the particular detriment of retailers that do not own generation assets.

Increased price volatility in the market and hedging activity

A review of pricing for the 2016 period indicates that for a four-month period between July 2016 and October 2016, there was a general increase in pricing and its variability in the balancing and STEM markets. This is shown in Figure A18 and Figure A19.

Figure A18. Balancing market prices (2014–2016)

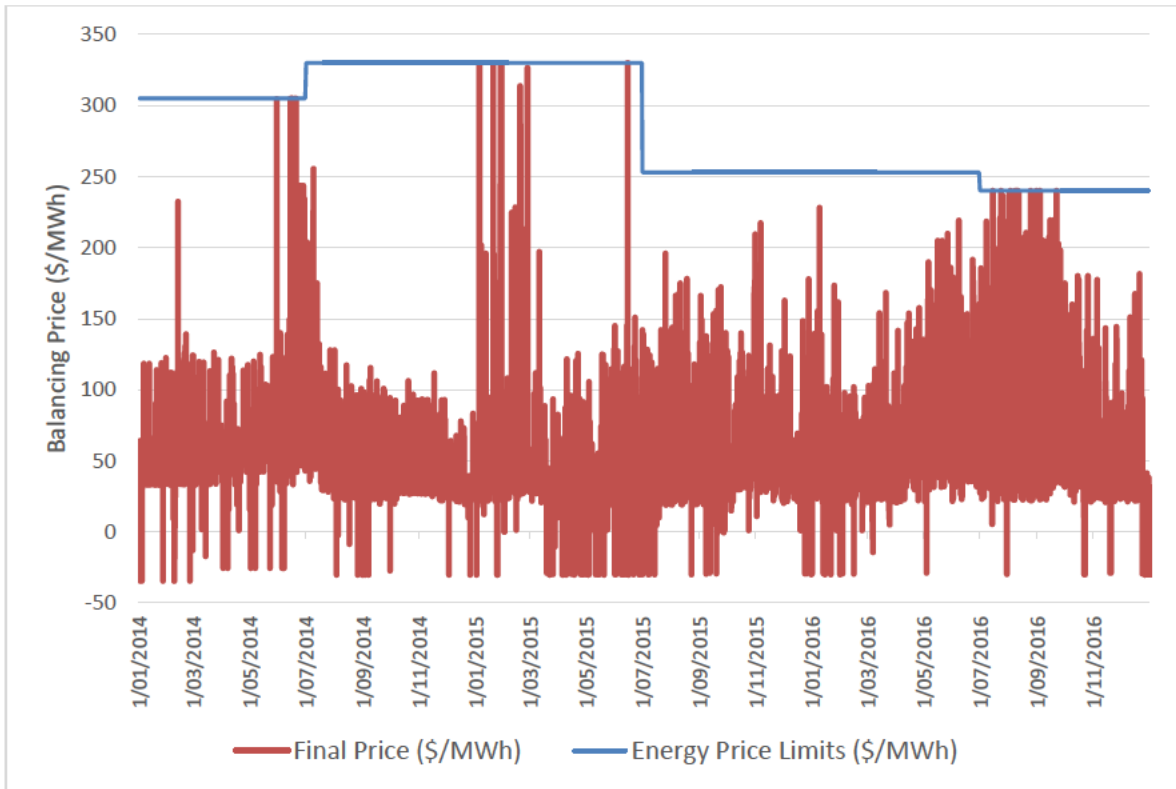
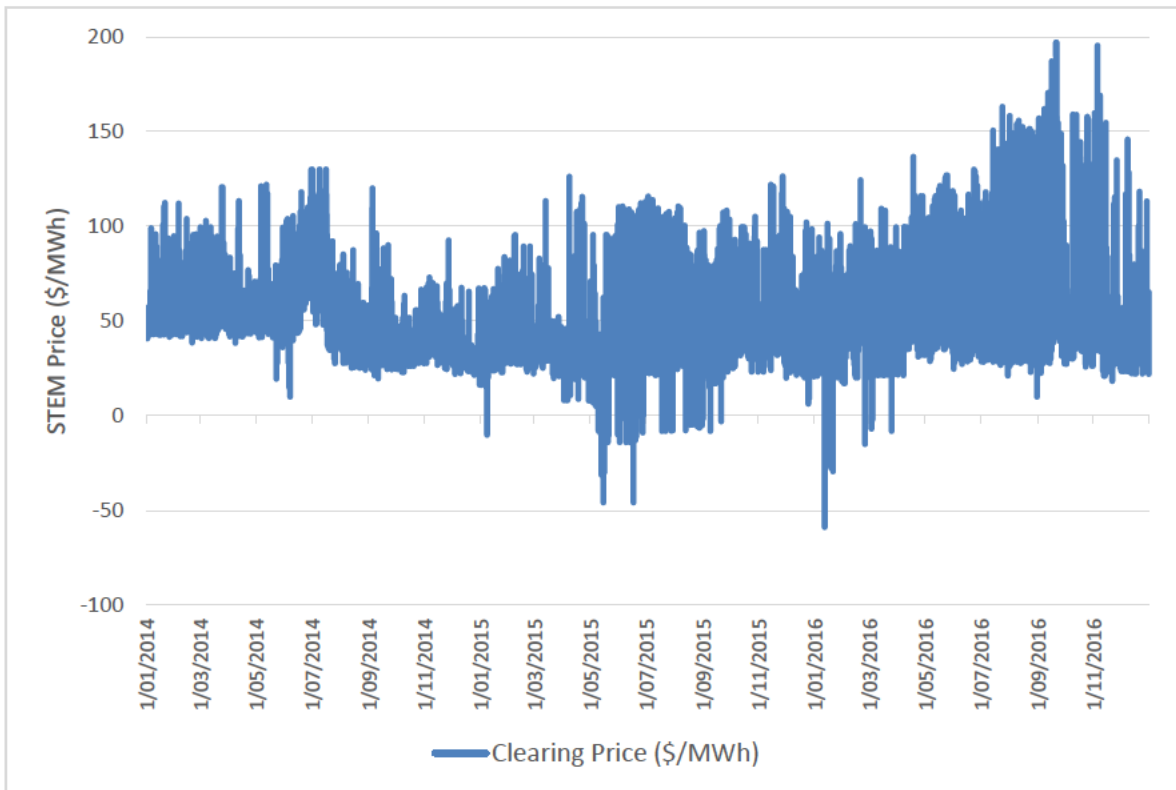


Figure A19. STEM prices (2014–2016)



This variability in pricing may have resulted from the combination of substantial capacity (including baseload capacity) on outage throughout this period, and [REDACTED]

The prolonged duration of increased variability in the market increases the need for competitively priced short-term contracts to help retailers manage their risk to remain in the market and continue to exert competitive pressure. This need may intensify over the medium term, given the Minister's recent announcement of plans for Synergy to close more than 380 MW of existing generation assets by September 2018, and to reduce Synergy's generation cap to 2,275 MW in total (excluding renewable plant).¹³³ Recent changes in the inputs to calculate energy price limits are expected to increase energy price caps in the STEM and balancing markets. The increase in price caps may also contribute to a higher price volatility in the future.

Additionally, AEMO's website indicates that the capacity credits assigned to demand side management have reduced by approximately 450 MW between the 2016–17 and 2017–18 reserve capacity cycles.¹³⁴ Increased requirements were proposed for demand service providers as a part of the capacity mechanism reforms under the Electricity Market Review.¹³⁵

The removal of excess supply, and as a consequence the excess energy that has helped to suppress the variability of STEM and balancing market prices until recently, may further increase the variability of market prices and hence the need for competitively priced short-term contracts.

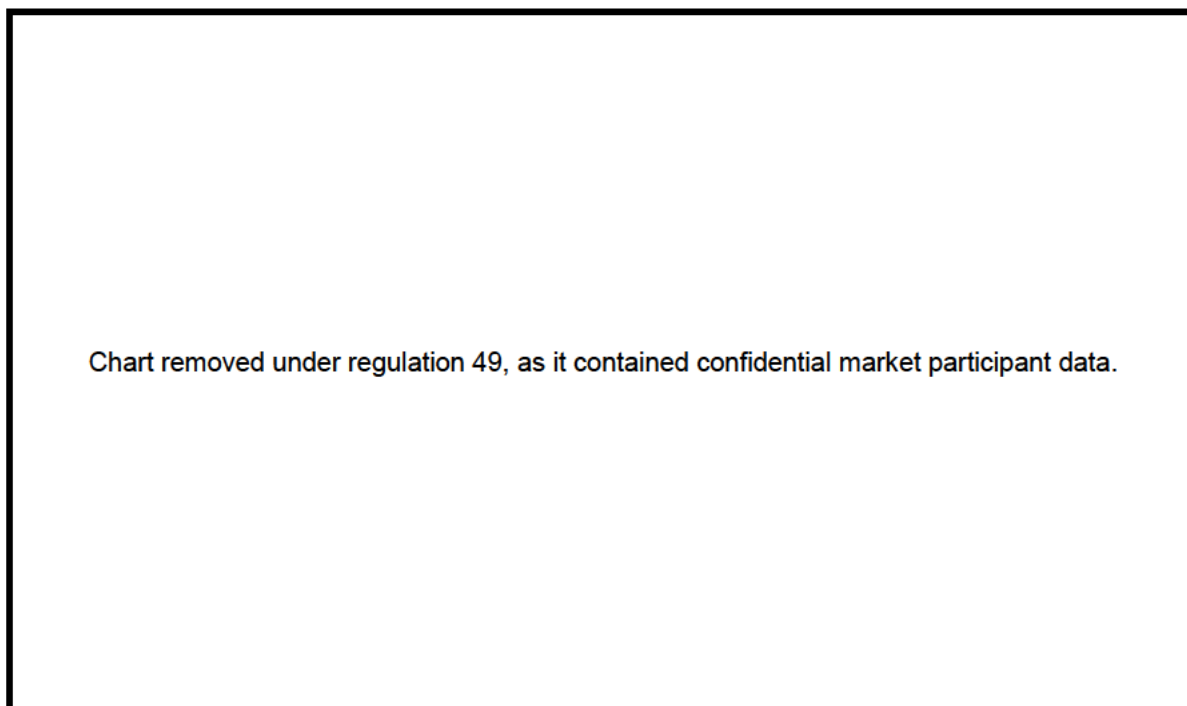
A review of Synergy's 'Executed Contract Register'¹³⁶ supports this view. Refer to Figure A20 and Figure A21.

¹³³ The assets designated for retirement include Muja AB units 1 to 4 (240 MW), Mungarra gas turbine units 1, 2, and 3 (113 MW), West Kalgoorlie gas turbine units 2 and 3 (62 MW), and Kwinana gas turbine unit 1 (21 MW). See <https://www.mediastatements.wa.gov.au/Pages/McGowan/2017/05/Synergy-to-reduce-electricity-generation-cap-by-2018.aspx>

¹³⁴ See 'Capacity Credits since market start up to 2017-18,' available at: <http://wa.aemo.com.au/Electricity/Wholesale-Electricity-Market-WEM/Reserve-capacity-mechanism/Assignment-of-capacity-credits>

¹³⁵ Refer to Final Report: Reforms to the Reserve Capacity Mechanism, Electricity Market Review, Department of Finance | Public Utilities Office, 7 April 2016, p.6, https://www.finance.wa.gov.au/cms/uploadedFiles/Public_Utility_Office/Electricity_Market_Review/Reforms-to-the-Reserve-Capacity-Mechanism-Final-Report.pdf

¹³⁶ A log of all of the details of the executed contracts for customized products undertaken by the WBU with other parties (including Vinalco and the RBU).

Figure A20. Number of contracts and average contract term by quarter (2014–2016)

The quarterly number of executed contracts for the WBU's customised products and the average term of those contracts [REDACTED]. The average terms of the contracts undertaken in Q4 2016 were similar to those observed in 2014, in the first year of operation of the scheme. [REDACTED] contracts were entered into in Q3 and Q4 2016, as compared to [REDACTED] contracts in Q3 and Q4 2014, at the start of the standard product regime.

The ratio of RBU and Vinalco contracts to the total number of contracts undertaken by the WBU was [REDACTED] in 2014, and [REDACTED] in 2015. This ratio [REDACTED] [REDACTED] in 2016, indicating that third parties entered into an increased number of contracts over this period, [REDACTED]. Notably, in Q4 2016, third parties entered into [REDACTED] (as compared to [REDACTED] in Q3 2016).

Thus, consistent with the increase in variability of energy spot prices, there was an increase in third party contracting activity.

Trade volumes and face value by quarter of executed contracts are presented in Figure A21.

- Retailers who do not have their own generation assets have limited opportunity to enter into bilateral contracts with market participants other than Synergy. Other retailers in the market use their generation capacity to hedge their own retail business.
- The standard products market has been illiquid due to possible design issues, including a too conservative and asymmetric attribution of risk through force majeure provisions and a large buy-sell spread. The rigidity of the products offered has limited market customers' choices for hedging.
- Although all retailers have the opportunity to invest in generation assets to manage their energy retail risk, such an option is capital intensive and requires an irreversible decision that may create a barrier to entry for small participants in the market.
- Whilst Synergy is compliant with the scheme, barriers to entry and expansion exist in the market for retailers who do not own generation assets.

A2.2.4. Customer outcomes in the retail market

In competitive markets, the majority of customers are satisfied with the outcomes received in the market, whilst those who are not satisfied are able to change to alternative products and suppliers that better meet their needs.¹³⁷

A survey of customer satisfaction that only considers the outcomes for the contestable market as a whole is not currently available. However, the ERA conducted its annual performance analysis of electricity retailers serving small use customers in the SWIS.¹³⁸

The findings of the annual performance review showed that the level of complaints made by small business customers to electricity retailers has generally declined since 2010–11. The majority of complaints to electricity retailers were billing complaints. Synergy received the highest rate (and number) of business complaints when compared to its competitors in the 2015/16 period.

A2.2.5. Retail market prices

In a market transitioning towards enhanced competition, retailers may be able to improve their cost-effectiveness by reducing their energy supply costs. Savings realised through

¹³⁷ Australian Energy Markets Commission (2015) 2016 Retail Competition Review, Approach Paper, Australian Energy Markets Commission, Sydney, page 9, available from: <http://www.aemc.gov.au/getattachment/c405e286-330e-475d-8d4a-7b773c446e10/Approach-Paper.aspx>

¹³⁸ Under licensing legislation, small use customers are defined as residential and business customers whose annual consumption is less than 160MWh of electricity.

such efficiency gains can be passed through to customers, and provide a competitive advantage to the retailer.

The change in retail prices over time can provide an indication of the evolution of competition in the retail market. The composition of retail prices, and characteristics of different energy products offered by retailers, can provide further insights into the dynamics of market competition.

Whilst the ERA has access to retail prices for Synergy for the purposes of this review, it does not have access to retail prices charged by other retailers in the market. The analysis of retail market outcomes in this report is, therefore, limited to Synergy's sales data only.

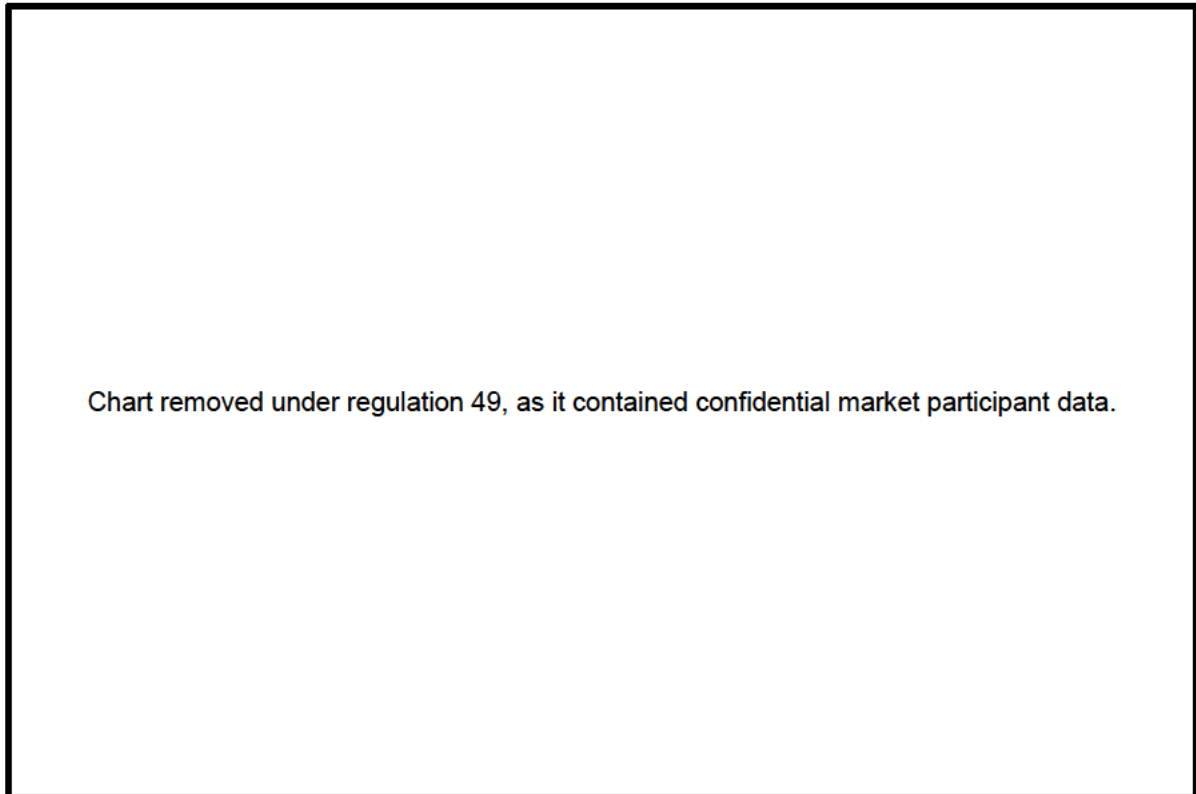
The analysis of Synergy's pricing behaviour [REDACTED]
[REDACTED]
[REDACTED] From 2014 to mid-2016, the average level of contract prices offered by Synergy [REDACTED] Over the same period, customers of Synergy on a contestable or a non-contestable tariff experienced [REDACTED]
[REDACTED]

The ERA has examined the energy volumes sold by the RBU and its corresponding sales revenues to investigate the extent of price competition in the contestable market. In a transitioning market with increasing competition and hence declining market power, sales margins are expected to decline.

Figure A22 illustrates Synergy's annual revenue and consumption based on three types of customer accounts in the contestable segment, i.e. customers with a customised contract, customers on a contestable tariff, and those paying a non-contestable tariff.¹³⁹

¹³⁹ The contestable segment as used in Figure A22 is defined as any account on a contract or contestable tariff or using a contestable amount of electricity (>50MWh) on a non-contestable tariff.

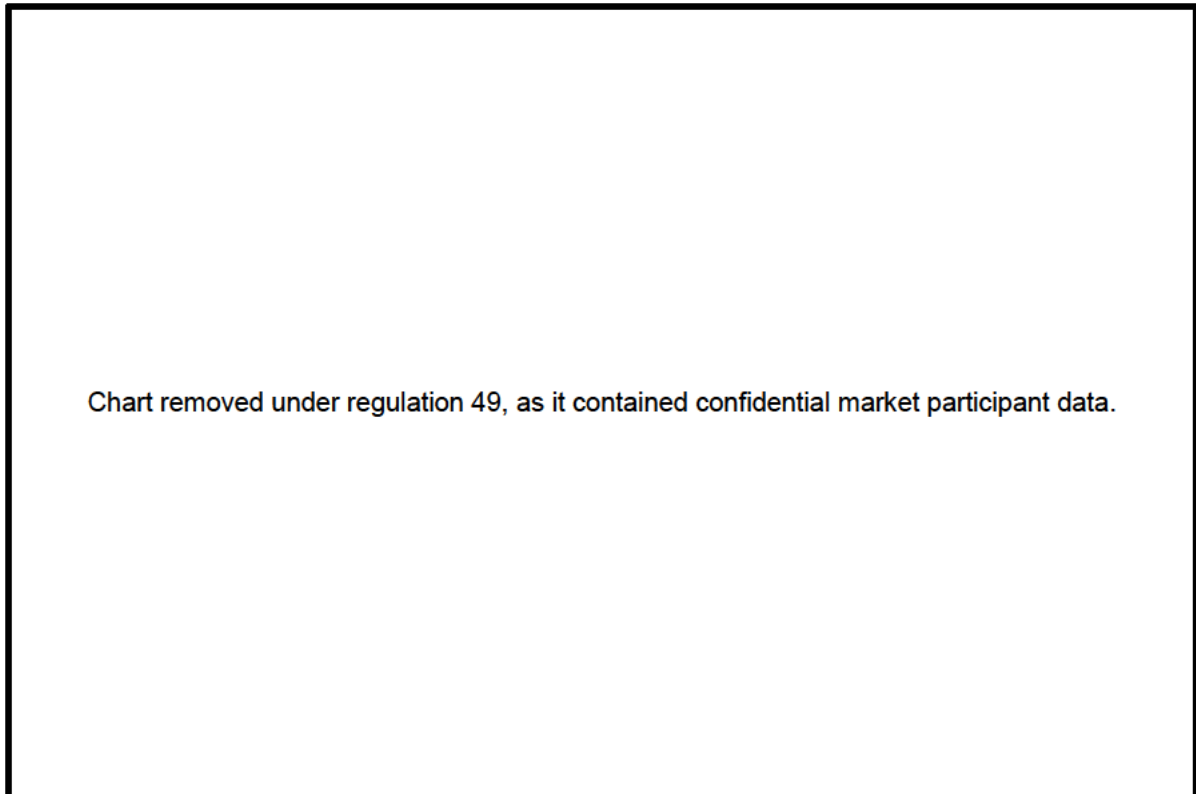
Figure A22. Synergy's annualised revenue and consumption based on customer accounts (contestable segment)



From commencement of the scheme to mid-2016, Synergy's total annual revenue from the three customer account types [REDACTED] [REDACTED] [REDACTED] [REDACTED] Non-contestable tariffs over the same period have remained relatively stable.

To investigate the likely impact of the scheme on the customer account categories above, an average energy price was calculated based on consumption and sales data in the contestable segment. Figure A23 shows average prices and price dispersion in the contestable segment.

Figure A23. Synergy's contestable segment average energy prices and price dispersion*



*Note: price dispersion is calculated as the percentage difference between the contestable tariff price (the highest price category) and the contract price (the lowest price category). Note that average prices are calculated based on total annual revenue and total annual consumption based on account type, and thus, include network charges.

[REDACTED]

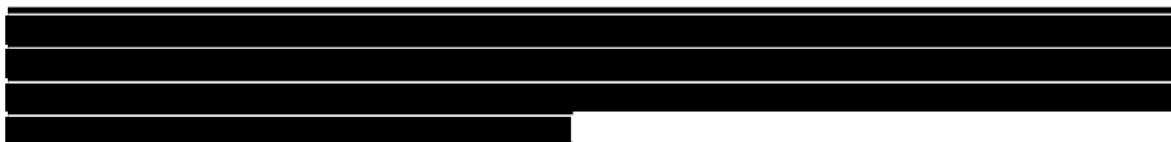
[REDACTED] This overall trend may indicate an increasing level of competition in the contestable market since the commencement of the scheme.¹⁴⁰

Among all categories, [REDACTED] Over the past two years, [REDACTED]

The level of price dispersion between the highest (contestable tariff) and lowest (contracts) account categories [REDACTED]

Figure A23 also shows substantial difference between [REDACTED]

¹⁴⁰ However, the data presented in Figure A23 covers the contestable market average prices since 2014. This does not provide information on the trend in prices prior to the commencement of the scheme to fully explore the impact of the Synergy and Verve Energy merger.



Summary:

- Synergy has faced an increasing level of pricing competition in the contestable segment.
- In the period from 2014 to mid-2016, the average level of contract prices offered by Synergy [REDACTED]
- During 2016, Synergy's level of price dispersion between the highest (contestable tariff) and lowest (contracts) account categories was [REDACTED]

A2.3. Wholesale market competition

Within the wholesale market, retailers can purchase electricity through bilateral contracts with other participants, the STEM, or the balancing market. Gentaillers may generate electricity, as well as purchase electricity from the energy markets. The mechanism a market participant will utilise depends on its assets and contracting preferences.

To assess competition in the wholesale supply market, consideration was given to changes in aspects of independent rivalry related to the structure of the market, demand, the ability of suppliers to enter, exit or expand within the market and wholesale market outcomes.

A2.3.1. Independent rivalry in the wholesale market

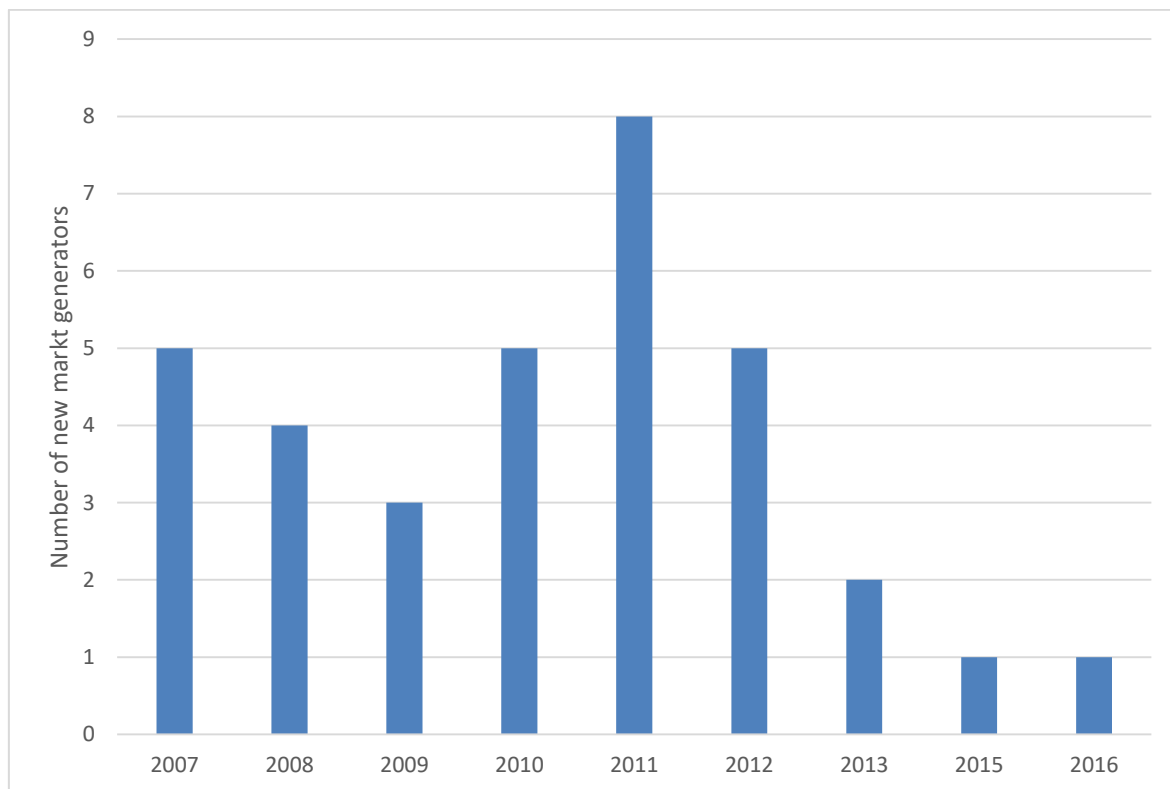
Indicators of independent rivalry are related to market structure and include:

- changes in the number, type and size of electricity suppliers over time;
- changes in market concentration indices; and
- changes in the market shares of electricity suppliers.

The findings show that Synergy is the dominant generator in the wholesale market. Since the merger, Synergy's market share has slightly decreased. Nevertheless, the Herfindahl-Hirschman Index indicates the wholesale supply market remains highly concentrated.

Number of registered market generators

Figure A24 shows the number of new market generator registrations during the 2007 to 2016 period.

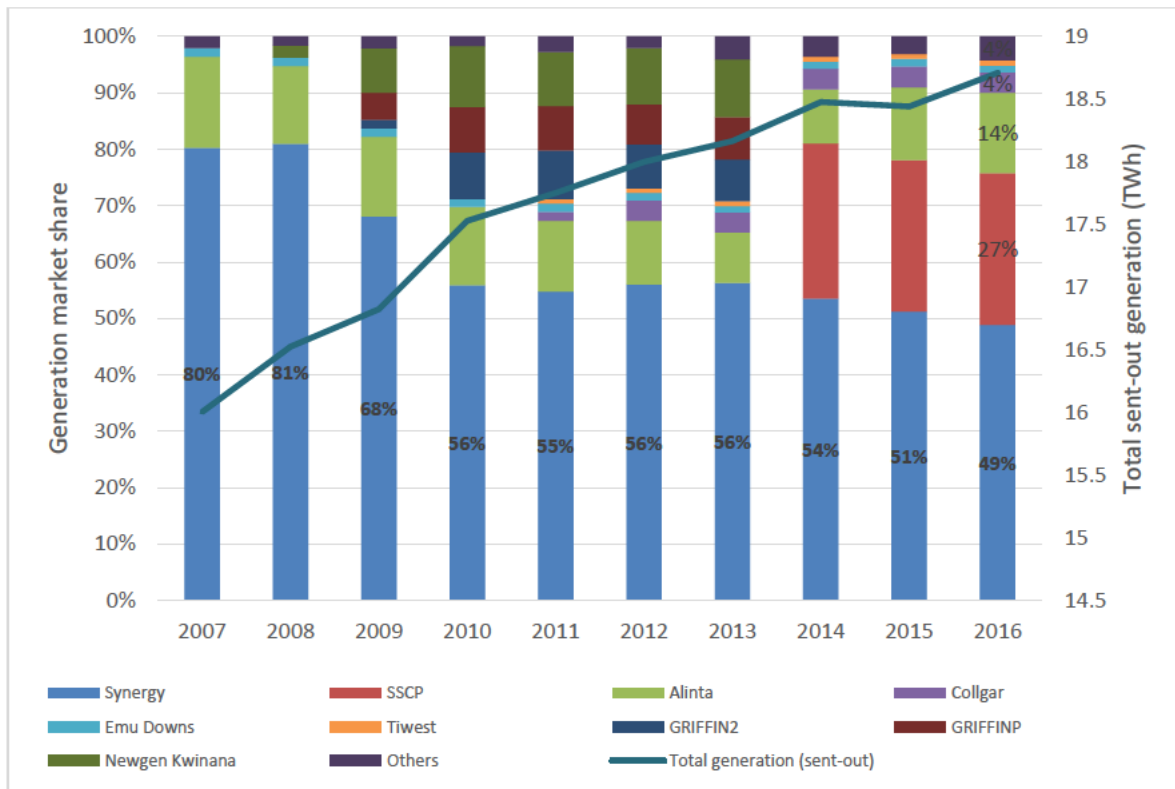
Figure A24. Number of new market generators registered (2007–2016)

The number of market generator registrations has decreased since 2011.

Generation market share

Collectively, three main suppliers, i.e. Synergy, Alinta Energy and Summit Southern Cross Power, generate 90 per cent of electricity in the wholesale electricity market (Figure A25).¹⁴¹

¹⁴¹ Summit Southern Cross Power (SSCP) comprises Bluewaters 1 and 2 and Newgen Kwinana. Notably, Synergy has contractual arrangements for supply with these organisations, which are listed as specified plant for Synergy under the standard product regime.

Figure A25. Generation (sent-out) market share and total annual volumes

Market participants' share of sent out generation has remained relatively constant since 2010, with Synergy being the largest generator in the market, followed by SSCP and Alinta.

Since 2013, Synergy's total generation sent out has shown a modest year on year decline offset by an increase in Alinta's year on year generation sent out. SSCP's total sent out generation also increased over the 2015 to 2016 period.

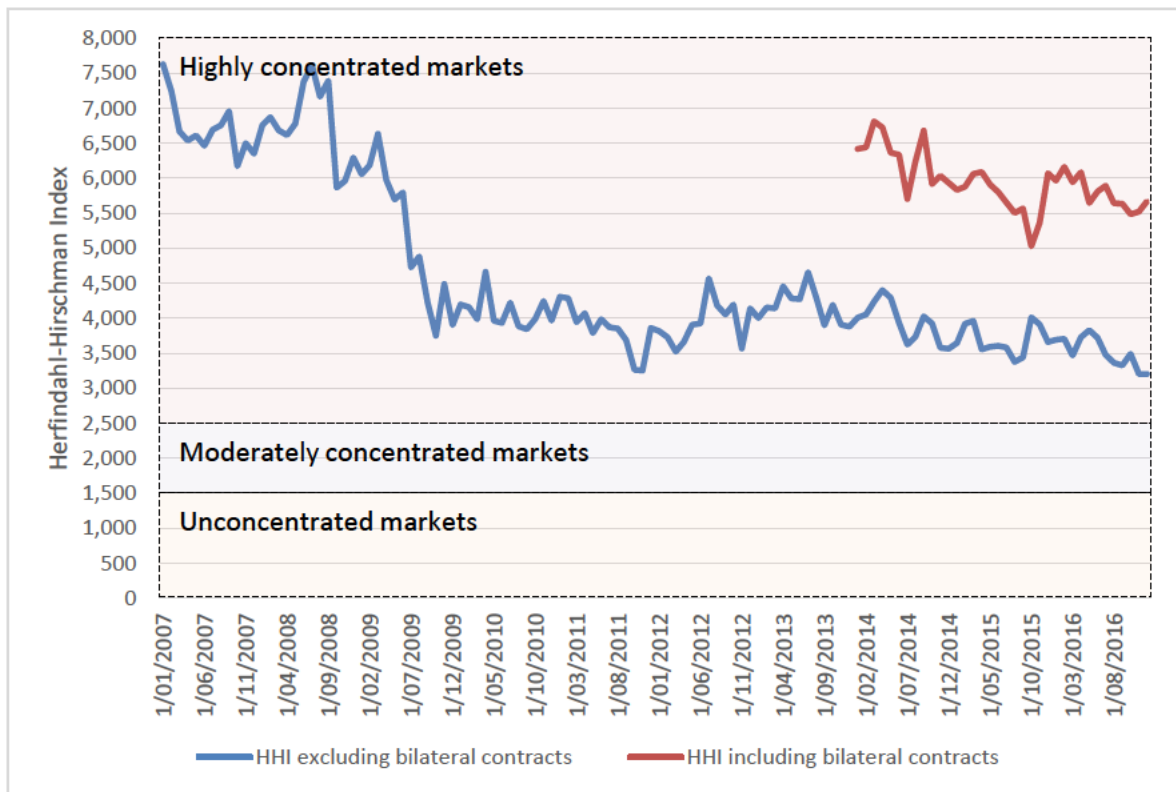
Generation market concentration

Figure A26 shows the market's Herfindahl-Hirschman Index reduced substantially following Synergy's displacement tenders.¹⁴² After this, the market's Herfindahl-Hirschman Index has remained relatively stable at around 3,500 to 4,000. The blue line indicates the Herfindahl-Hirschman Index for the market and the red line the Herfindahl-Hirschman Index after allocating bilateral supplies between market participants.¹⁴³ The index is considerably higher after adjusting for bilateral contracts between market participants.

¹⁴² Displacement tenders were the mechanism in the original vesting contract whereby Synergy (as the stand alone retail corporation) tested the market to facilitate entry for generation competitors.

¹⁴³ Bilateral contracts were deducted from the generating entity and applied to the purchasing entity. This was undertaken uniformly for all market participants.

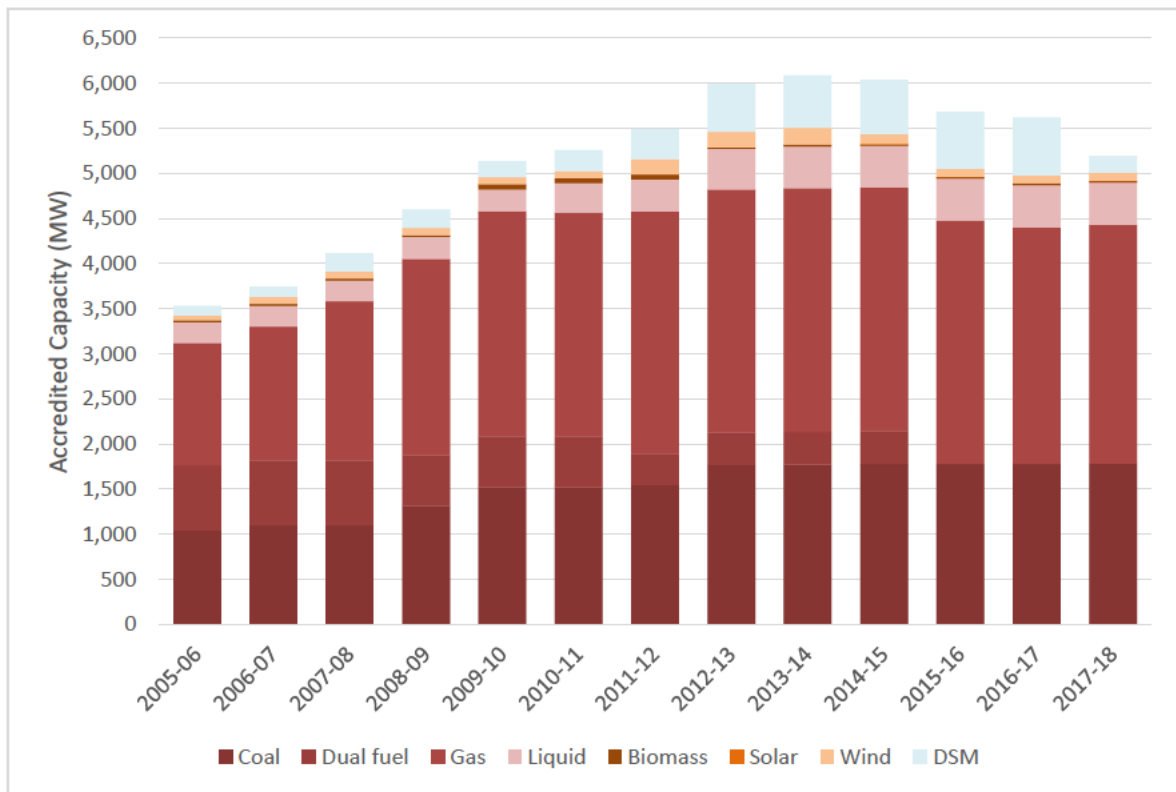
Figure A26. Herfindahl-Hirschman Index for generation (sent-out), including and excluding bilateral contracts



Generation capacity mix

Figure A27 indicates changes in the capacity mix over the 2007 to 2016 period.

Figure A27. Accredited capacity by fuel type for each capacity year since market commencement



Source: AEMO

From the initial gradual increases in accredited capacity up to the 2012/13 capacity year, the generation mix has generally remained stable, with only a slight reduction in wind generation, the removal of the dual fuel Kwinana Power Station from the 2015/16 calendar year, and a reduction in DSM in the 2017/18 capacity year.

Synergy's supply and disposal position

Figure A28 shows Synergy's net aggregate supply (including generation, bilateral and STEM purchases) and sales (including bilateral, STEM, and retail sales). Figure A29 shows Synergy's supply surplus as an indication of what is spilling into the balancing market noting that some bilateral contracts with large wholesale entities may be cleared or settled outside the market.

Figure A28. Synergy supply and disposal position (12 month moving average)

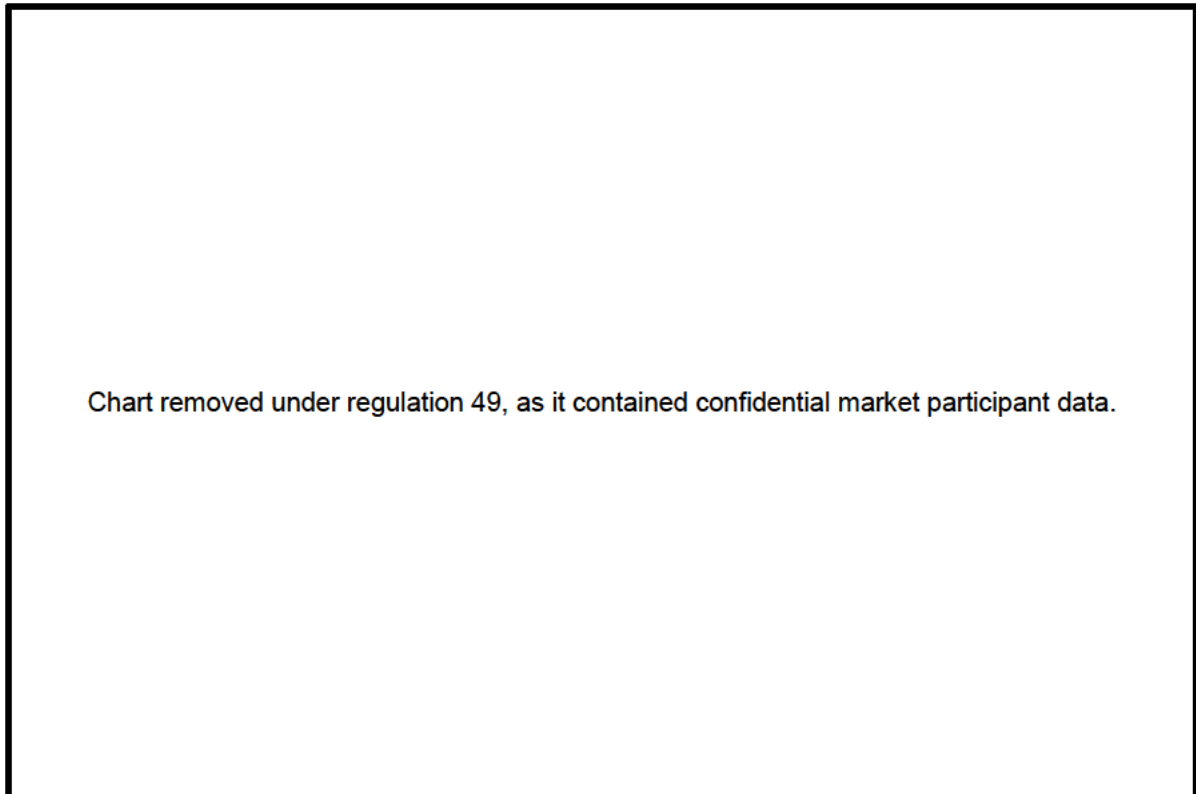
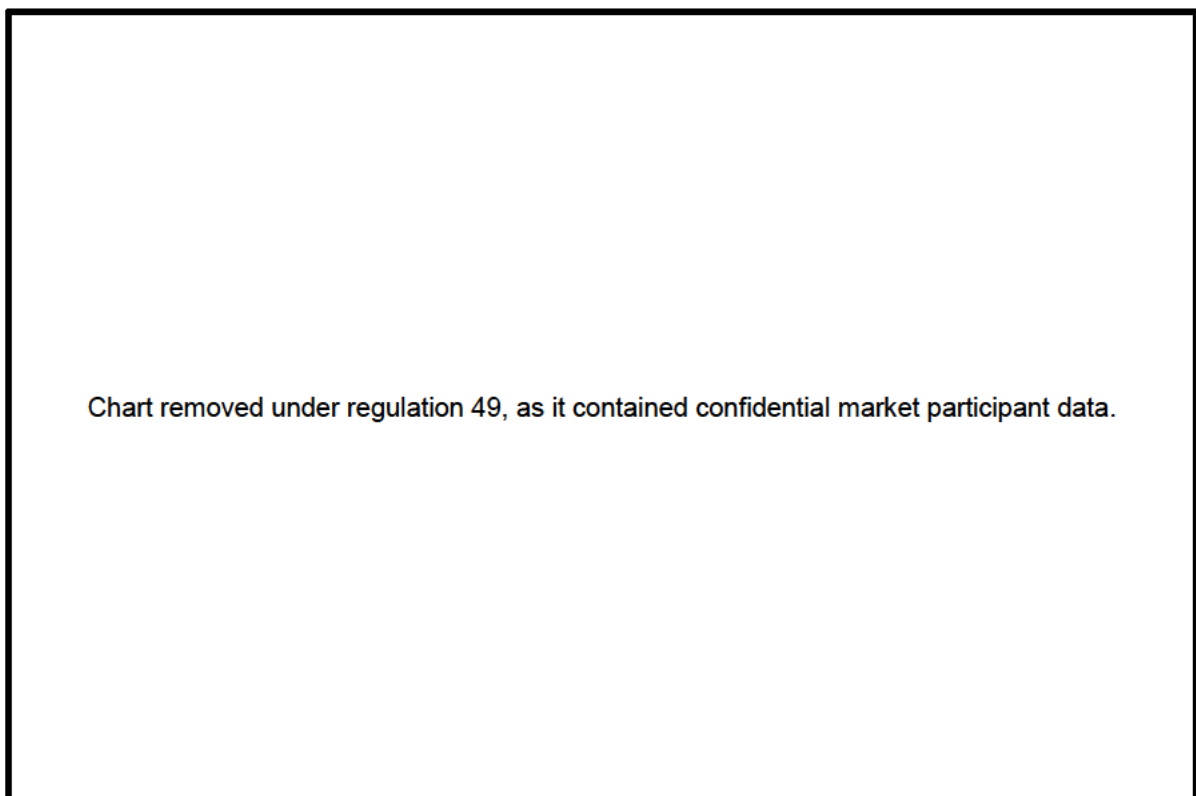


Figure A29. Synergy net electricity supply surplus (12 month moving average)



Synergy is the largest supplier in the market. Synergy's wholesale market control as a function of its generators' output and its bilateral purchases has declined modestly from just over 80 per cent since the balancing market start (in 2012) to around 75 per cent.

Synergy's energy acquisition (generation, bilateral contracting and STEM purchases) exceeds its sales. The generation excess is comparable to its STEM and bilateral wind farm purchases and spills into the balancing market. This indicates Synergy has retained more generation plant than it requires to meet its customers' demand. It also indicates the extent to which Synergy is long on generation and could enter into bilateral supplies to provide hedging contracts to other market participants.

Summary:

- Synergy is the dominant supplier in the market, despite a decrease in Synergy's market share in the wholesale supply market.
- Based on the Herfindahl-Hirschman Index, the wholesale supply market is highly concentrated.
- During 2016, the three largest suppliers in the market generated 90 per cent of energy in the SWIS.

A2.3.2. Barriers to entry, exit, or expansion in the wholesale market

Barriers to entry, expansion, and exit can generally arise from structural factors that are outside the control of incumbents (such as vertical integration, regulatory requirements, investment characteristics, or market outcomes) or from strategic barriers that are created by incumbents to deter entry.¹⁴⁴

The substantial concentration observed in the wholesale supply market (as illustrated in Figure A26), requires investigation of barriers to entry, expansion and exit in the market.

Little change in generator participant numbers has occurred in the past five years. Mount Herron Power Station generated 96 MWh in 2012 only and then deregistered in 2015. Since the merger, there have only been two new entrants registered as a market generators.¹⁴⁵

The low level of entrants to the generation market may be due to the existing excess capacity in the SWIS. AEMO estimated 23 per cent excess capacity in the SWIS for the 2016–17 capacity year. Based on the current level of installed capacity and planned retirements, and assuming no further changes to the WEM rules, no new capacity is required until the 2021–22 capacity year. However, by the end of 2026–27, the level of capacity shortfall is expected to be 433 MW.¹⁴⁶

¹⁴⁴ Hird, T. et. al. (2012). Barriers to entry in electricity generation: a report outline for the AEMC. Competition Economists Group.

¹⁴⁵ CleanTech Energy and Exergy Power.

¹⁴⁶ Refer to AEMO's 2017 Electricity Statement of Opportunities for the Wholesale Electricity Market, June 2017. https://www.aemo.com.au/-/media/Files/Electricity/WEM/Planning_and_Forecasting/ESOO/2017/2017-Electricity-Statement-of-Opportunities-for-the-WEM.pdf

The Minister has announced the removal of generators from the market that have a combined capacity of 384 MW.¹⁴⁷ However, in the 2014-15 capacity year, these units contributed only 223 GWh, i.e. approximately 1.4% of the total energy generated by power stations (excluding renewable generators), to the SWIS.¹⁴⁸

Between the 2016-17 and 2017-18 reserve capacity cycles, capacity credits assigned to demand side management reduced by around 500MW. The retirement of the generators and the reduction in demand side capacity will reduce the excess capacity in the SWIS to only four per cent (i.e. 187 MW) in the 2018–19 capacity year.

Investments in generation assets entail a substantial amount of capital. The current political and regulatory uncertainty around wholesale market reform and environmental policies in Western Australia may deter generation investments. The retirement of inefficient assets may also be deferred as a result of such uncertainties.

Since the commencement of the Large Scale Renewable Energy Target, a number of new-entrant renewable generators (wind and solar), have been encouraged into the market. These new entrants, however, have only marginally contributed to the total approved capacity in the capacity market (refer to Figure A27).

Renewable energy based power generation units have a low short run marginal cost and usually bid at the minimum energy price limit in the market (-\$1,000). As such, in the merit order they are not the marginal plant that sets the market clearing price. The incumbent peaking generators continue to set energy market prices.

Under the current market rules, Synergy is allowed to trade in the wholesale supply market as a portfolio. Given Synergy's portfolio size (in approved capacity), for most of the time, Synergy is the price setter in the balancing market during peak trading intervals (i.e. 84 per cent of peak trading intervals).¹⁴⁹

Combined with the relatively slow growth in demand for electricity from the grid, the current circumstances in the generation market may not drive a significant reduction in the market share of Synergy until the mid-2020s. Assuming that no regulatory changes materialise in the meantime, the dominance of Synergy in the generation market is expected to continue.

Summary:

- Environmental policy and regulatory uncertainty stemming from electricity market reforms in the Electricity Market Review may defer

¹⁴⁷ These include Muja AB units 1 to 4 (240 MW), Mungarra gas turbine units 1, 2 and 3 (113MW), West Kalgoorlie gas turbine units 2 and 3 (62 MW) and Kwinana gas turbine unit 1 (21 MW). See: <https://www.mediastatements.wa.gov.au/Pages/McGowan/2017/05/Synergy-to-reduce-electricity-generation-cap-by-2018.aspx>

¹⁴⁸ This does not include renewable generation. See page 19 of AEMO (June 2016). *Deferred 2015 Electricity Statement of Opportunities*: https://www.aemo.com.au/-/media/Files/Electricity/WEM/Planning_and_Forecasting/ESOO/2015/Deferred-2015-Electricity-Statement-of-Opportunities-for-the-WEM.pdf

¹⁴⁹ Based on an analysis of the balancing market clearing prices from March 2016 to July 2017, for trading intervals from 6:00 AM to 11:30 PM.

decisions to invest in capital intensive generation assets in Western Australia.

- Given the current circumstances in the generation market, and the slow growth in demand for electricity from the grid, Synergy is expected to remain the dominant generator in the wholesale supply market until the mid-2020s.

A2.3.3. Wholesale market

Demand in the wholesale market

In competitive wholesale markets, demand levels can influence market prices, which in turn influence the operational and investment decisions made by energy suppliers.

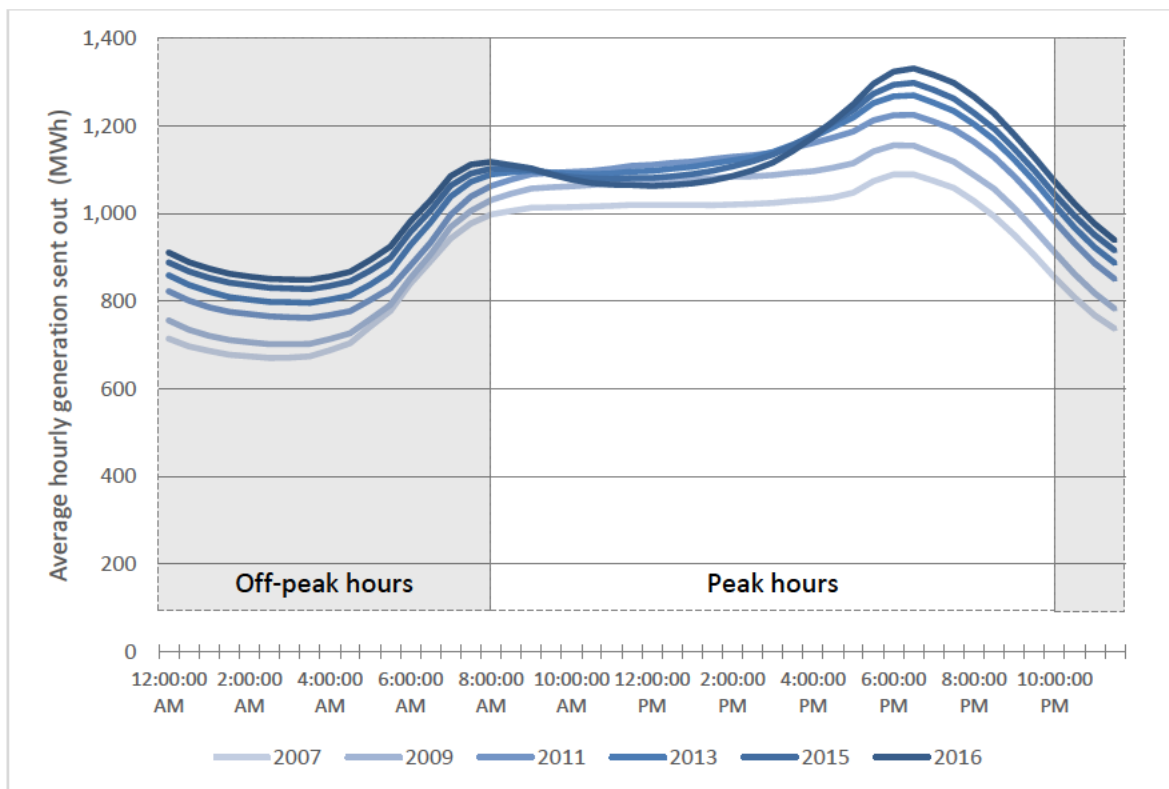
Prices in the WEM can be volatile because of fluctuating demand for electricity across seasons. A substantial proportion of electricity demand is strongly related to temperature. Hot season average maximum temperatures range from 25 to 31 degrees Celsius, with the highest maximum temperatures in the mid-forties.¹⁵⁰ Daily peak electricity demand can range from below 2,000 MW to above 4,000 MW. The highest maximum demand usually occurs when there is a sequence of hot days, with high overnight temperatures increasing the demand for air conditioners. This typically occurs between early February and mid-March. Daily peak demand is also higher on business days than on public holidays and weekends.

In assessing demand in the wholesale market for 2016, changes in annual average load factor by time of day were considered.

Figure A30 presents the average generation sent out for all months from 2007 through to 2016 by time of day.¹⁵¹ The effect of changes to the load profile through time are apparent with a progressive reduction in load between the hours of seven AM and five PM.

¹⁵⁰ The wholesale electricity market rules define the hot season as the period commencing at the start of the trading day on 1 December and ending at the end of the trading day on 1 April.

¹⁵¹ To compare load profile changes, the load factor was calculated by dividing the monthly average generation sent out for each time of day by each month's maximum average generation sent out. This rescales the load profile to negate magnitude differences.

Figure A30. Average hourly generation sent out by time of day

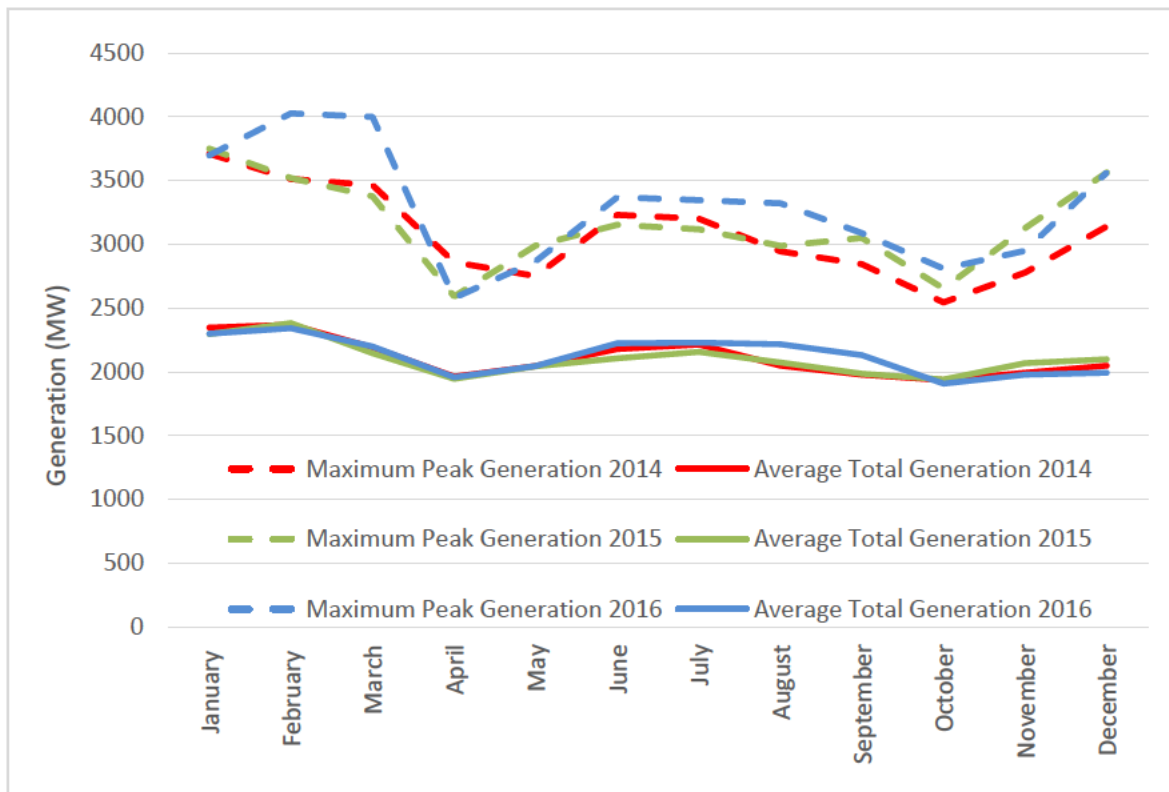
Electricity demand peaks in the morning and ramps down through the middle of the day as solar generation increases. Demand peaks again late afternoon, as loads increase and solar output reduces. Meeting the afternoon peak requires conventional generation to ramp up steeply. Despite changes in the load profile, the overall load factor has changed only modestly with increases in overnight demand offsetting, in part, midday demand reductions.

Gas-fired generation provides backup for intermittent renewable generation. Higher fuel costs will result in higher input costs for generators, leading to higher costs in the WEM. Additionally, greater (or lesser) consumption and demand necessarily translates to greater (or lesser) generation output. This also affects costs in the WEM.¹⁵²

Figure A31 compares balancing market average total generation with the maximum peak generation for each month in the 2014 to 2016 period.

¹⁵² Australia Energy Markets Commission, (2016) 2016 Residential Electricity Price Trends, final report, Australia Energy Markets Commission, Sydney, available from <http://www.aemc.gov.au/getattachment/be91ba47-45df-48ee-9dde-e67d68d2e4d4/2016-Electricity-Price-Trends-Report.aspx>

Figure A31. Balancing market monthly average total generation and monthly maximum peak generation (2014–2016)



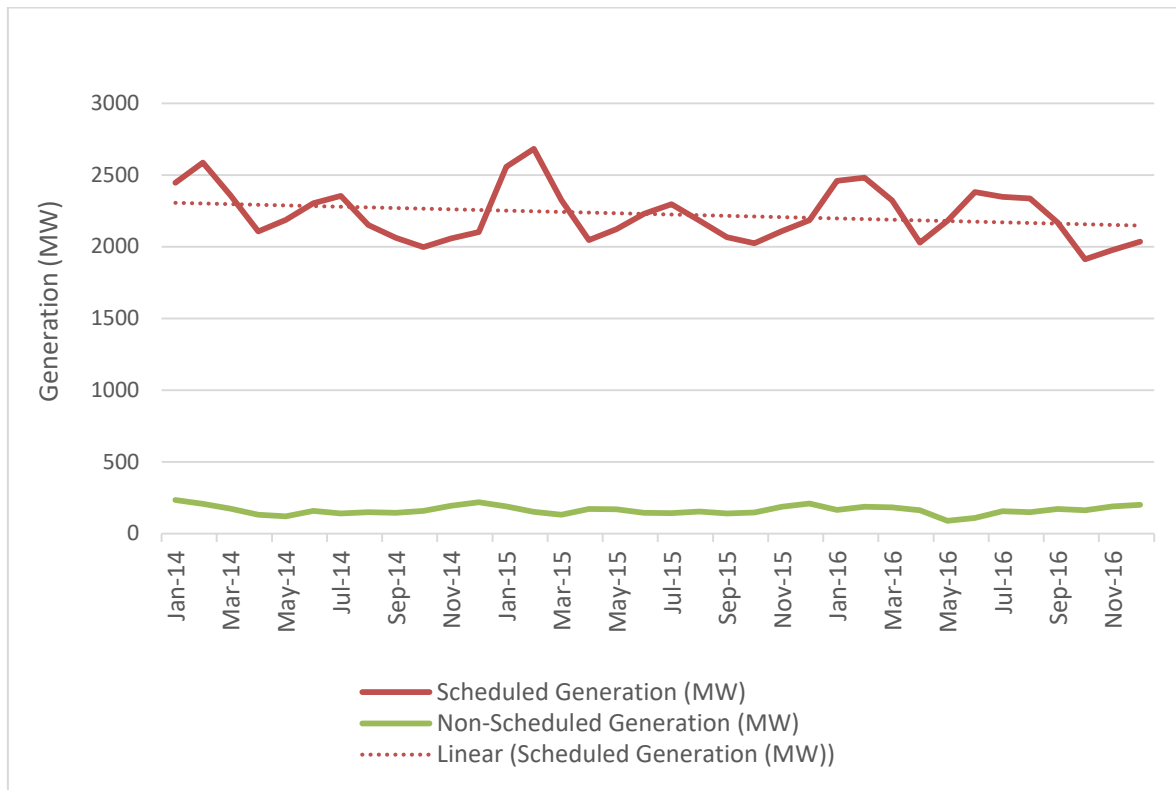
Average total generation was relatively stable across the 2014 to 2016 period, although it appeared to trend slightly higher across the June to October 2016 period than in the previous years. This trend was consistent with that observed in the monthly maximum peak generation for 2016, and with the higher final balancing prices observed during this period.

The February and March 2016 period produced record peak demand. On 8 February 2016 demand peaked at 4,013 MW¹⁵³ at 17:30 PM, with the daily maximum temperature reaching 42.5 degrees during a period of four consecutive days when maximum temperatures exceeded 40 degrees Celsius.

Figure A32 depicts the average, peak interval, scheduled and non-scheduled generation over time.

¹⁵³ This exceeded the previous highest demand of 3,857 MW, which was recorded on 25 January 2012. See page 3 of AEMO (June 2016). *Deferred 2015 Electricity Statement of Opportunities*: https://www.aemo.com.au/-/media/Files/Electricity/WEM/Planning_and_Forecasting/ESOO/2015/Deferred-2015-Electricity-Statement-of-Opportunities-for-the-WEM.pdf

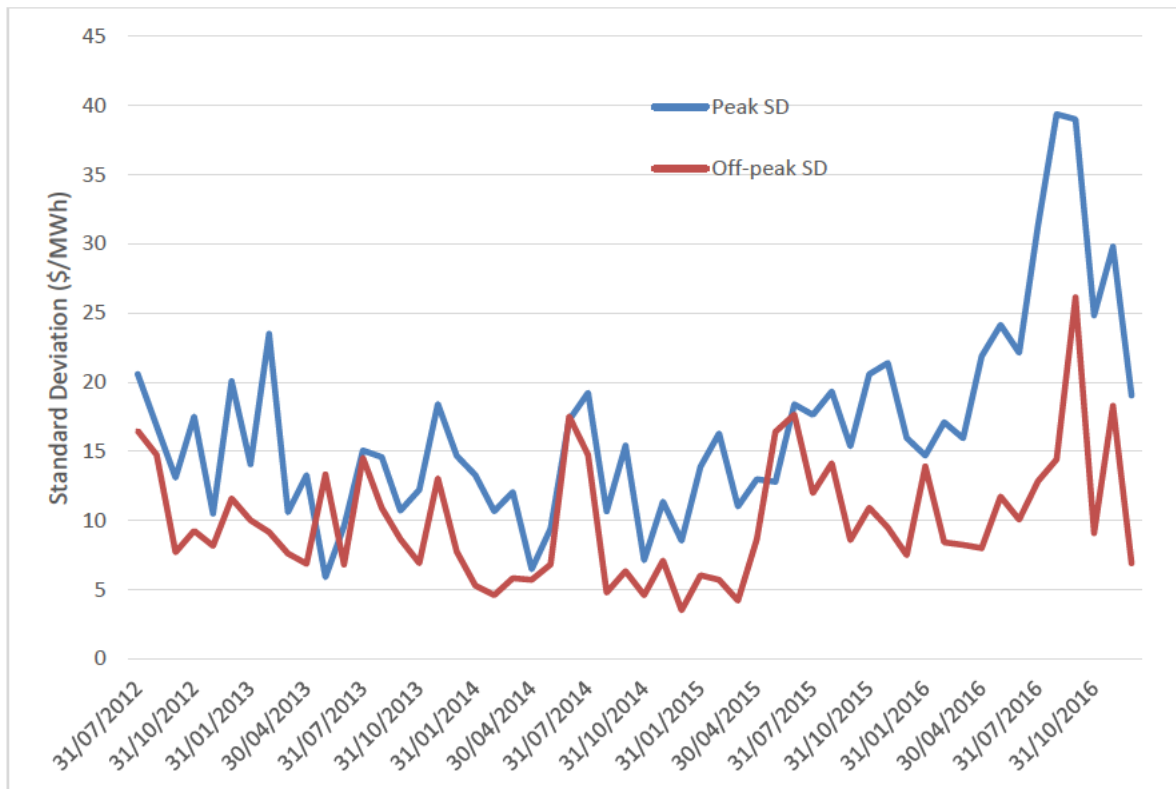
Figure A32. Balancing market monthly average peak scheduled and non-scheduled generation (2014–2016)



Whilst non-scheduled generation remains relatively stable over time, monthly average peak scheduled generation appears to be trending slightly downward. This may reflect a decline in residential electricity consumption from the grid due to rising rooftop solar PV installation in the SWIS.

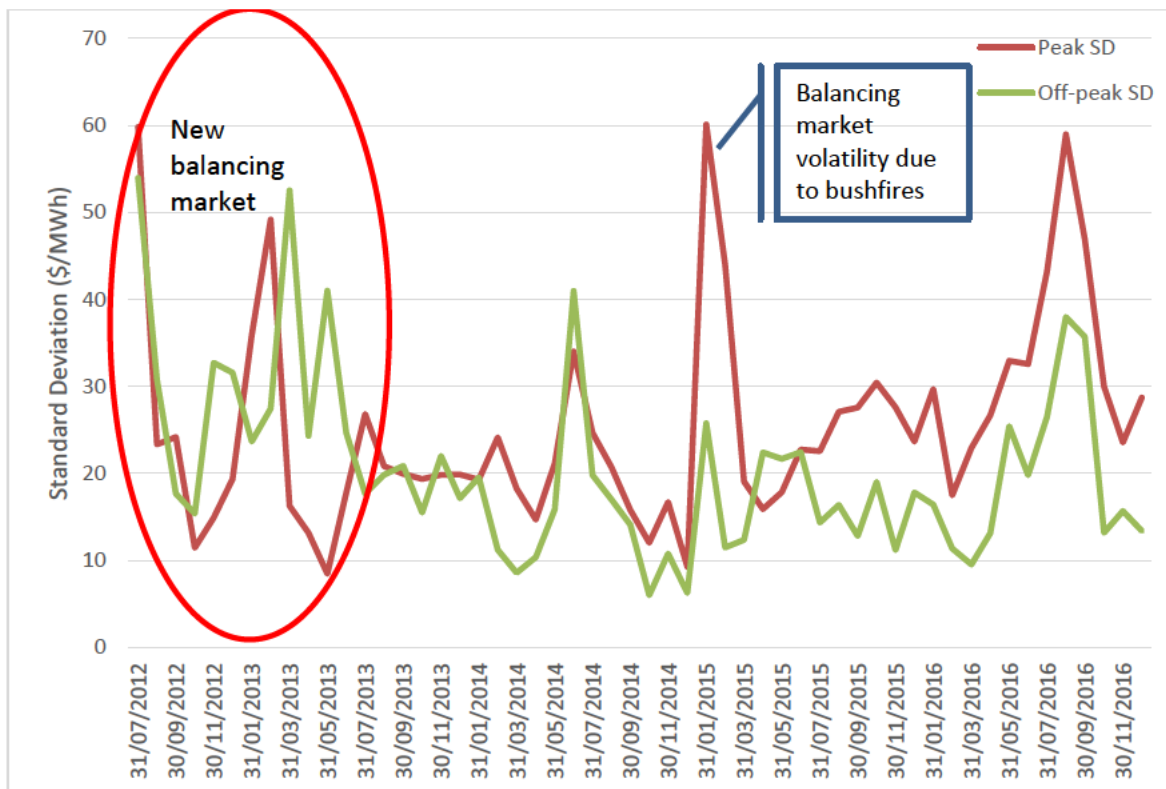
Price volatility in the STEM and balancing markets

As noted earlier, there is evidence to suggest that price volatility is increasing in the STEM and balancing markets. Figure A33 shows the monthly STEM and balancing market peak and off-peak price standard deviation.

Figure A33. Monthly STEM peak and off-peak price standard deviation

The variability in STEM peak and off-peak pricing in 2016 was substantially higher than in 2015. The variation in pricing in 2016 is the highest since the start of the balancing market.

The balancing prices also show an increasing trend toward volatility. Figure A34 shows the monthly Balancing market peak and off-peak price standard deviation.

Figure A34. Monthly balancing market peak and off-peak price standard deviation

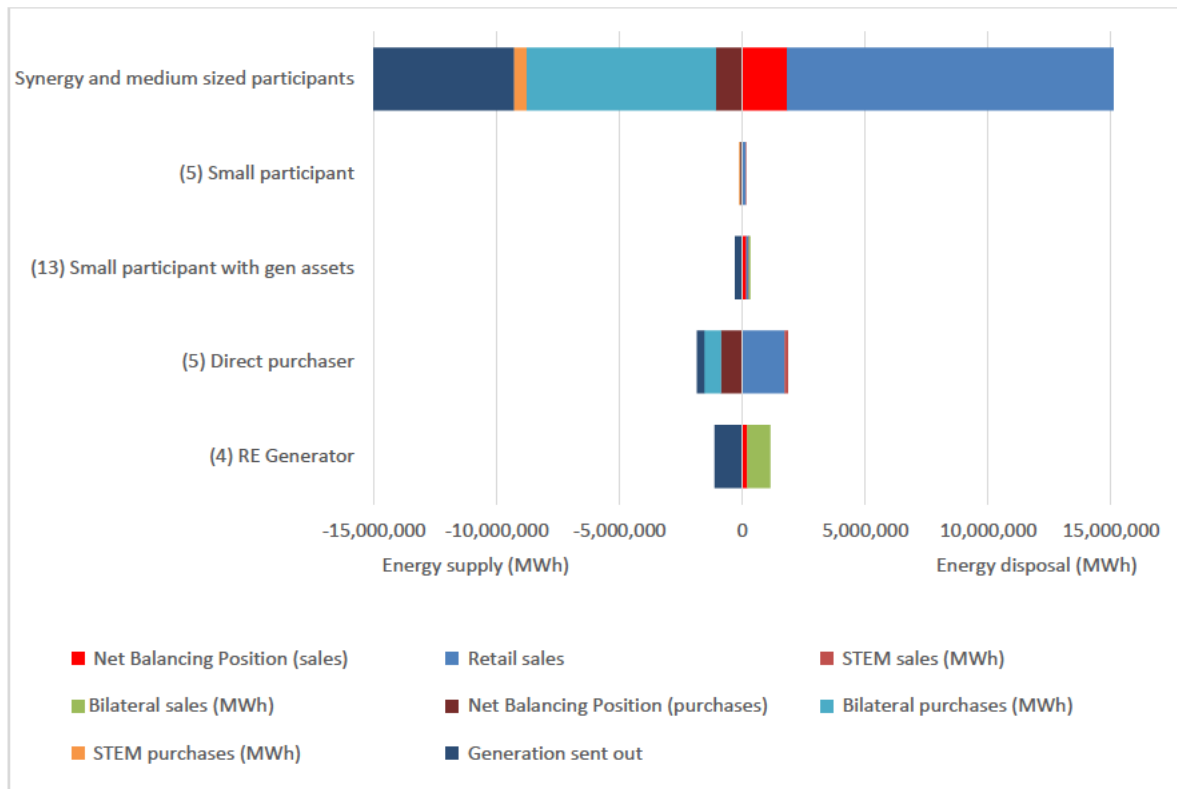
Considerably more variation in peak and off peak balancing prices is observed in 2016, compared to 2015. A similar level of volatility has not been observed in both peak and off-peak prices since 2012.

The increased volatility in the energy markets magnifies the risk that energy retailers are exposed to, and the need for risk management options.

Net supply and disposal positions

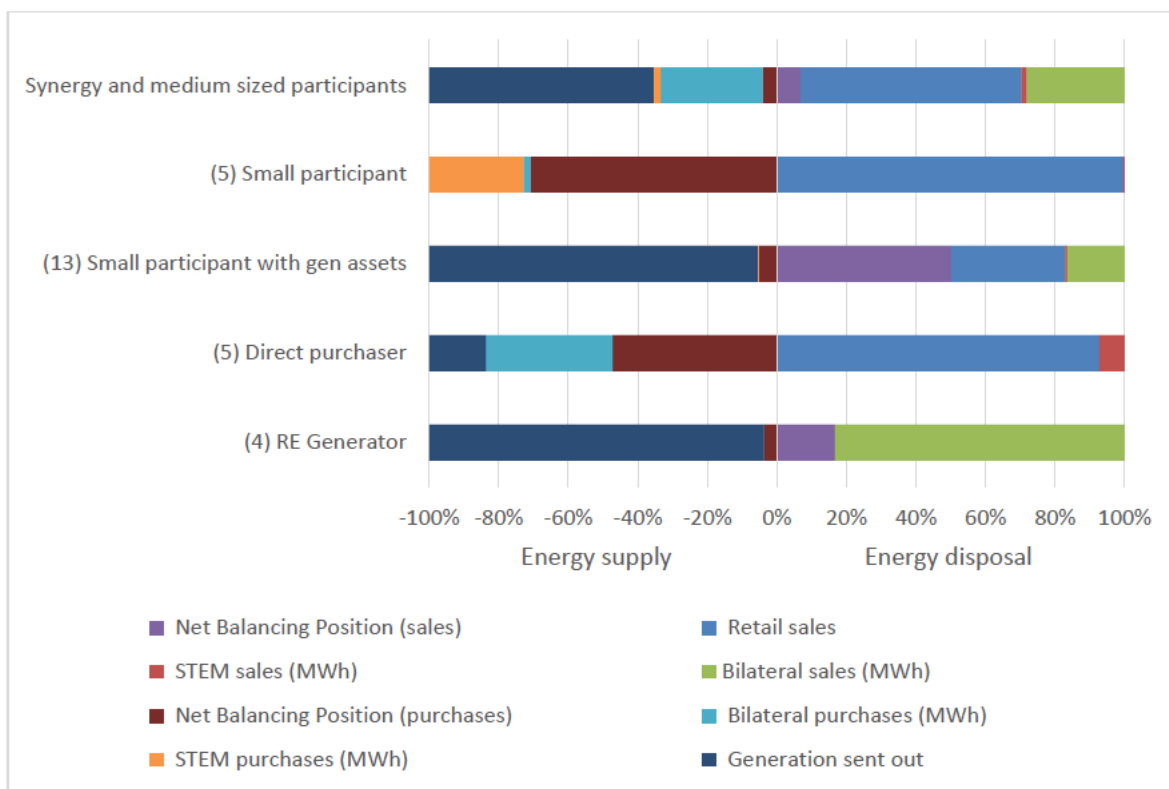
Figure A35 shows the net supply and disposal position of market participants by type.¹⁵⁴ The bulk of activity occurring in the WEM is undertaken by very few participants. These participants are reasonably well hedged either with themselves (through self-generation) or with third parties.

¹⁵⁴ Charts were compiled from market settlement data. Each market participants STEM and bilateral positions were determined and matched against their sales (or consumption) data. Asymmetries between purchases and sales were deemed to have come from the balancing market as a 'net position'. Actual balancing market sales and purchases by an entity could conceivably exceed this but the two would net each other out. Activity by market participants in each grouping were summed to provide a group position.

Figure A35. Net supply and disposal position by participant type* (GWh)

*Note: The number of market participants of each type is represented in brackets.

Figure A36 shows the net supply and disposal proportion by market participant type. Small market participants without generation assets purchase most of their supply through the STEM and balancing market and are thus highly exposed to price volatility. In comparison, those market customers also participating as market generators cover most of their supply through self-generation, and thus, have substantially less exposure to energy market price volatility.

Figure A36. Net supply and disposal proportion by market mechanism by participant type

Summary:

- The shape of the daily demand curve has changed over time. Demand during the day, in off-peak periods, has progressively reduced over time, when compared to the relatively stable demand observed during the peak periods.
- The increased penetration of residential solar PV may be the major contributor to the reduction in the demand curve during the day time trading intervals.
- The volatility of prices in the STEM and balancing markets increased markedly in 2016.
- The increased volatility in the spot markets heightens market customers' need for hedging instruments in order for managing their risk (market generators with significant approved capacity have less exposure to price volatility in the spot market due to capacity payments).
- Small market participants (with no generation assets) had substantial exposure to STEM and balancing prices. Only one small market participant acquired a small portion of their energy through bilateral contracts.

- The increased volatility in the spot market may increase the risk premium charged in the bilateral contracts and standard products traded in the market. The increased risk premium may ultimately be passed on to energy consumers.

A2.4. Overall state of competition in the SWIS

Competition has continued to develop in the contestable retail market, with Synergy losing market share to rivals. However, competition in the contestable retail market is mainly occurring between a limited number of participants that also own generation assets, with some capacity to self-hedge. There has been no growth in the market share of small retail market participants.

Synergy's wholesale supply market share decreased slightly in 2016 but it remains the dominant supplier in the market, with a combined share of 74 per cent after accounting for Synergy's own generation and long-term contracts with other generators. The wholesale supply market remains highly concentrated.

The level of electricity demand is relatively stable over time, however, with the increasing penetration of solar PV in the market, the daily load profile is changing. This may influence the mix of generation plant required to meet the changing daily load profile, and in turn influence wholesale prices. Nevertheless, excess capacity and regulatory uncertainty may have contributed to deferrals in decisions to invest in generation assets. Consequently, Synergy's wholesale supply market dominance will continue over the next few years.

Increased volatility was observed in the STEM and balancing market prices in the latter part of 2016. This heightens the need for retailers to have access to hedging instruments. However, small market participants, without generation assets, have remained largely unhedged and exposed to the price volatility in energy markets. Significant exposure to volatile electricity prices can weaken the financial position of these retailers, and thus, reduce their ability to compete in the retail market.

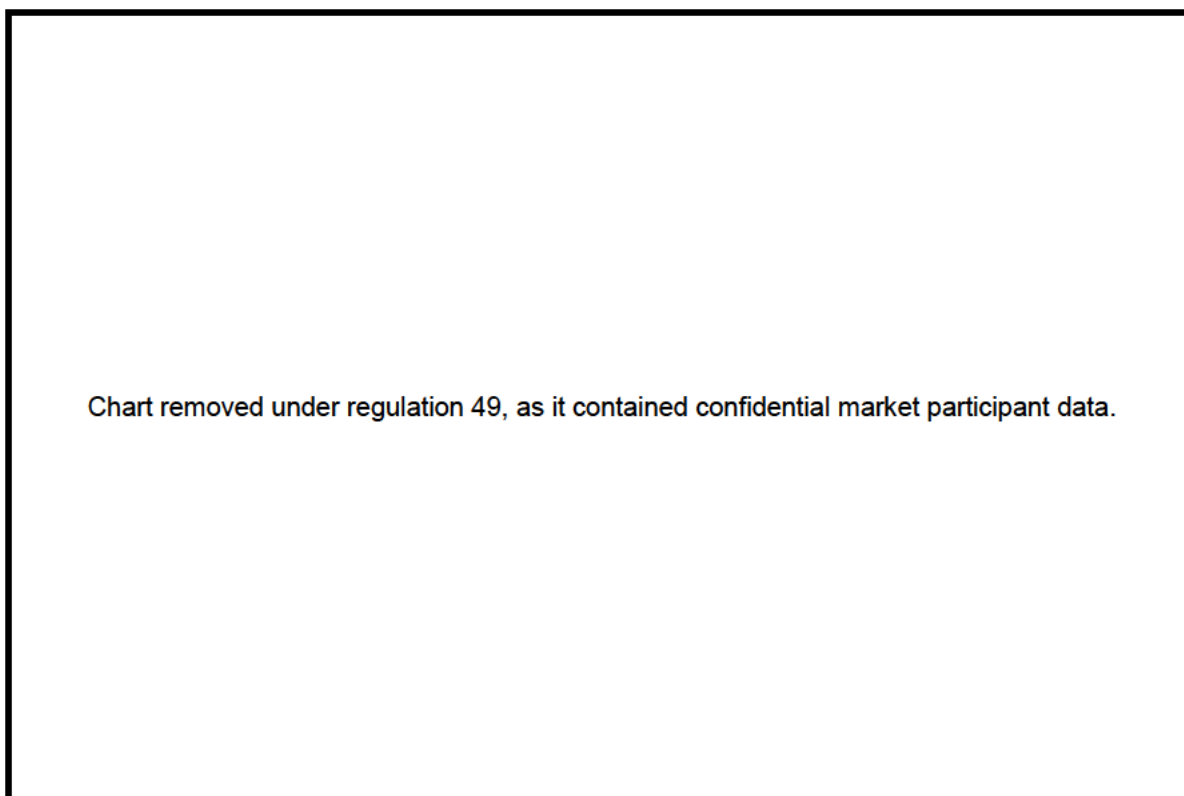
Appendix 3 Analysis of executed customised contracts

In the 2016 Request for Quote log, contracts that were subsequently entered into by market participants were categorised as executed contracts. Of 490 rows of listed quotes, [REDACTED] quotes were identified as being executed. The executed contracts for customised products variously included peak or off-peak volumes or both. The participants contracting were [REDACTED]

[REDACTED] No participants classified as small retailers contracted for customised products in the 2016 review period.

The terms (i.e., the period) of each contract, presented in Figure A37, varied ranging from a period of less than a day to up to three years.

Figure A37. Frequency of terms in executed contracts by market participant

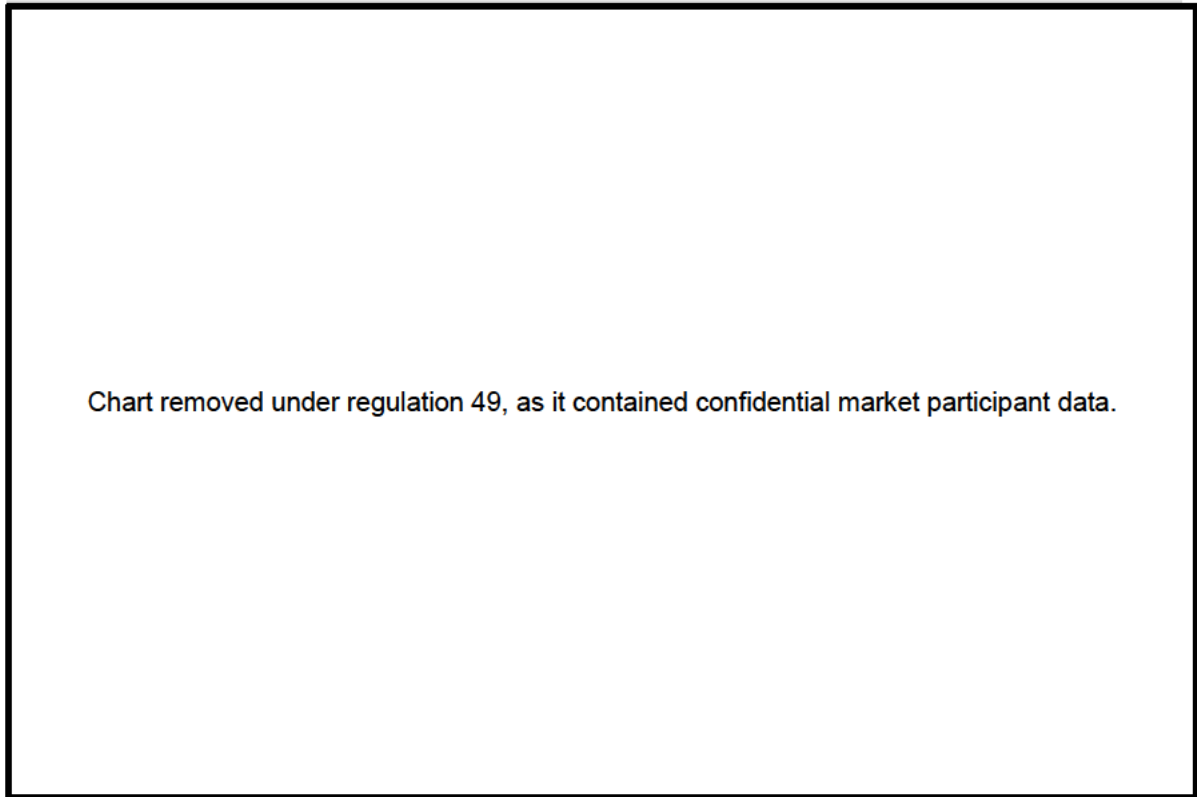


[REDACTED] of the executed contracts were for a quarterly term, and [REDACTED] for an annual term. Seventy six per cent of all executed contracts were for customised products with terms less than a quarter, and only 17 per cent were for products greater than a quarter. [REDACTED] executed products were for a term greater than a year, [REDACTED] of which were for a period of three years.

The pattern of terms differed by market participants. For example, [REDACTED] primarily required shorter term products than the standard quarter, whilst [REDACTED] primarily required products with terms longer than the quarterly period. [REDACTED]

Figure A38 presents the frequency of particular peak volumes executed by market participants. A zero MWh volume indicates that the participant sought an off-peak product only.

Figure A38. Accepted RFQ's frequency of peak volume by market participant

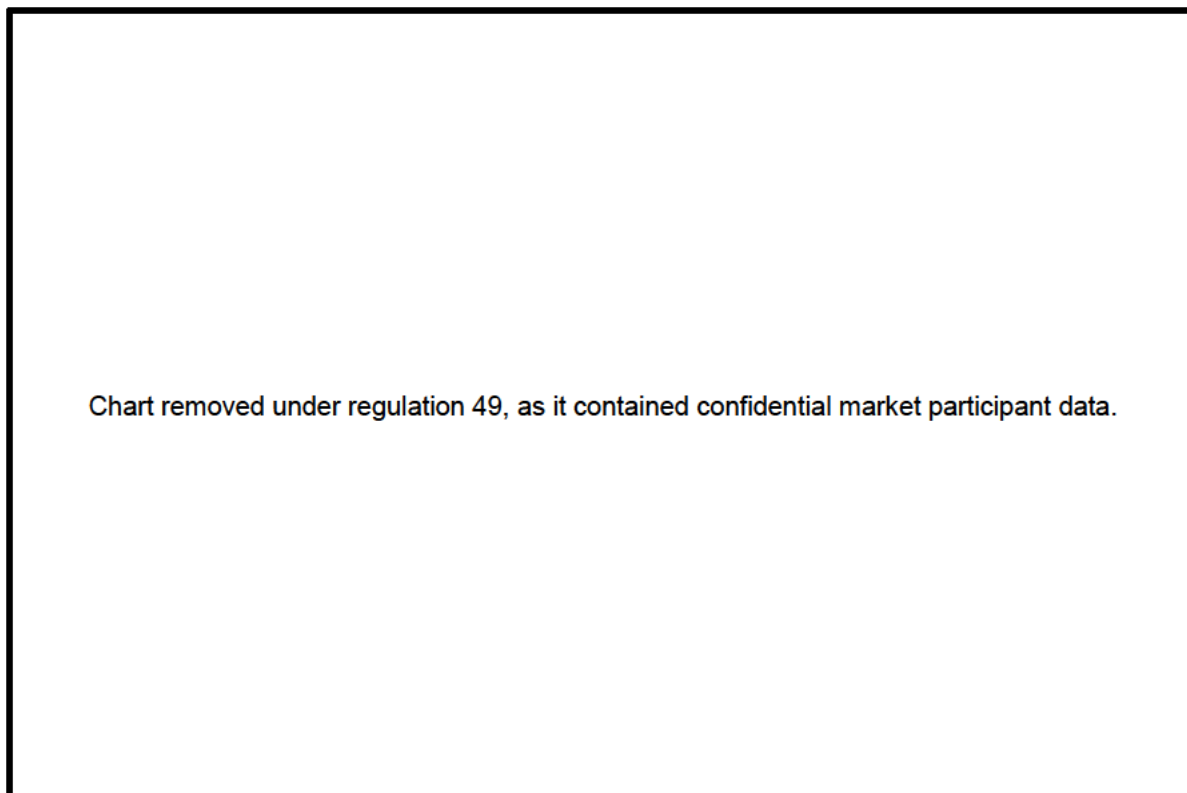


Twenty-one per cent of executed peak contracts were for volumes less than 10 MWh. [REDACTED] executed peak contracts with volumes up to 10 MWh. [REDACTED] primarily executed larger volume contracts for peak energy.

However, the executed peak contracts differed in their classification of peak periods by market participants.

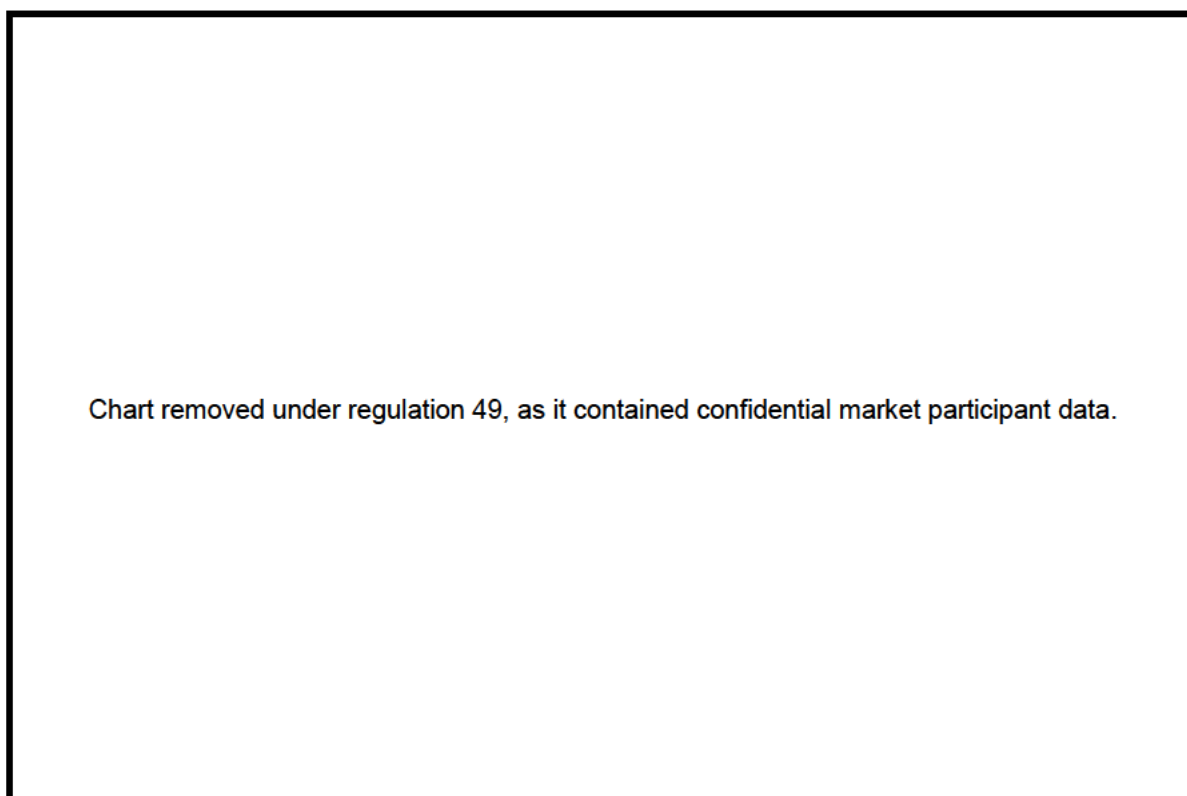
Figure A39 shows the definition of a peak period in the executed contract list could vary by several hours between 6 AM and 10 PM, within and between market participants, leading to the execution of six different types of peak period contracts. [REDACTED] defined the peak period as being 8 AM to 10 PM on business days.

Figure A39. Accepted RFQ's frequency of peak definition by market participant



The frequency of off-peak volumes executed by market participants are presented in Figure A40. A zero MWh volume indicates that the participant sought a peak product only.

Figure A40. Accepted RFQ's frequency of off-peak volume by market participant



The pattern of contracting in off-peak volumes was similar to that observed for peak volumes. [REDACTED] have thus contracted small peak and off-peak volumes for longer terms, whilst [REDACTED] primarily executed larger volume peak and off-peak contracts for shorter periods.

Only one small retailer submitted requests for quotes for customised products, none of which were executed. This participant submitted [REDACTED] requests for quotes, [REDACTED] of which were for a quarterly term, [REDACTED] were for a term of 0.08 years, [REDACTED] were for a term of 0.21 years and [REDACTED] a term of 0.04 years. Peak and off peak volumes were for 1, 2 and 4 MWh's. One off-peak volume was 0.5 MWh's.

Analysis of Synergy's Request for Quote log thus indicates that market participants may be interested in contracting in standard products with larger volumes over shorter terms than a quarter, smaller volumes over longer terms and varying definitions of peak periods.

