

Submission to the Economic Regulation Authority

Discussion Paper: Report to the Minister for
Energy on the Effectiveness of the Wholesale
Electricity Market 2017/18

8th February 2019

Overview

Thank you for your invitation to make a submission evidence in response to the discussion paper – *Report to the Minister for Energy on the Effectiveness of the Wholesale Electricity Market 2017/18*, published 21 December 2019.

In this submission we provide our views in response to a number of the specific questions raised by the Economic Regulation Authority (ERA) (see Appendix A), and provide high level commentary on the context of the ERA's report. We also include recommendations on further areas of analysis the ERA may wish to pursue, particularly with regard to discerning whether the Wholesale Electricity Market (WEM) is currently meeting the market objectives, and providing valuable input on matters to be addressed by the forthcoming WEM reforms.

It is on the issue of analysis relating to market reform (or lack thereof) that Perth Energy would like to express its misgivings about the ERA's report. While we understand that the current WEM effectiveness review was made in the context of ongoing WEM reform, and the precise nature of these reforms are as yet undefined, we are disappointed that the ERA has opted not to include analysis on those market mechanisms that stand to benefit most from reform.

The ERA states:

Many of the reforms identified in the [market reform] program aim to address known shortcoming within market mechanisms, such as those that exist within ancillary services and network access.

At the time of writing, the details of the reform are still under consideration and so are not addressed in this paper.¹

We submit there remains a need for an independent review of the effectiveness of the operation of each element of the WEM, regardless of whether that element may or may not be subject to reform. For example, the current market and dispatch systems are no longer fit for purpose, largely as a result of the prolonged pathway to WEM reform, which has inhibited their replacement. We suggest independent analysis on the effectiveness of the current market and dispatch systems is merited and would provide a useful catalyst for delivering their upgrade or replacement – which is highly sought after by Market Participants and is essential irrespective of whether any proposed WEM reforms proceed.

Though the WEM reforms are being managed by the Public Utilities Office, we believe the ERA has an important and influential role to play in ensuring the reformed market is ultimately successful. The ERA has an obligation to provide its independent expert input into the current state of the WEM, which would surely prove invaluable in helping inform which market arrangements would be the most prudent and economically advantageous.

¹ Page 2, WEM Effectiveness Report 2017/18, ERA.



We note that in past WEM effectiveness reports the ERA has provided detailed analysis in support of potential improvements such as the introduction of a security constrained, co-optimised energy and ancillary services market, and the impact of a carbon reduction scheme. Such improvements are yet to be implemented and remain valid today – potentially even more so given WA is no longer seeking to adopt the national energy framework and is instead seeking to evolve and improve its own market. We are therefore disillusioned by the absence of a similar level of analysis in this most recent report.

The ERA is the body responsible for the review of elements of the WEM such as the energy price limits, reserve capacity price, margin values and planning criterion. It is on this basis Perth Energy considers the ERA must *at the very least* have a view as to the improvements that can, and should, be made as part of business as usual, prior to the commencement of the new market arrangements and the Government-led reform process.

Perth Energy believes the State Government's reform process would benefit from the ERA's input. We consider Market Participants would value detailed analysis by the ERA of the following aspects of WEM effectiveness (in priority order):

1. The effectiveness of the dispatch process and systems in delivering efficient market outcomes, in particular as they have been impacted by:
 - a. the generation constraints imposed by Western Power ahead of the formal introduction of the constrained access regime;
 - b. the use of Synergy's Mungarra and West Kalgoorlie facilities under the dispatch support service contract, which has since been terminated;
 - c. forecasting accuracy; and
 - d. intermittent generation volatility (including behind the meter and small-scale solar generation).
2. The effectiveness of the separation and re-allocation of market functions through the former Electricity Market Reform program, designed to increase the efficiency and delivered outcomes in the WEM, in particular in relation to rule-making, and compliance and enforcement functions, and the ring-fencing appropriate to those functions.
3. The effectiveness of the market information disclosure and publication arrangements in particular in relation to transparency of system management dispatch decisions, publication of retail market information for the purposes of increased transparency and competition, and network outages and constraints for more efficient planning and pricing outcomes.
4. The value for money of the services delivered by the parties governing the WEM in the context of the alarming increases proposed for market fees.
5. The impact of the new pricing arrangements for demand side management programmes on the market.
6. The effectiveness of the short term energy market and standard product regimes as financial hedging tools.
7. The effectiveness of the use of the planning criterion and benchmark generator to set the Reserve Capacity Price in the WEM on an annual basis.

Perth Energy also requests the ERA publishes more granular data than that currently provided in the WEM effectiveness report, in order to facilitate more constructive stakeholder consultation. Data



published by financial year fails to show some of the more important influences on the market and market prices, including seasonal trends, outages, weather, fuel volatility, network tariffs, the capacity price and major contract terms.

Appendix A to this submission briefly addresses some of the questions raised by the ERA, based on the limited analysis and information provided in the WEM effectiveness report. Perth Energy recommends the ERA should provide a data register of the information underpinning its analysis (aggregated to the level required to comply with confidentiality requirements). This would allow stakeholders to validate the ERA's summary of market outcomes or assertions, and enable them to provide more constructive responses to the ERA's targeted questions.

We note the ERA has dedicated a considerable portion of its report on highlighting the potential for Synergy to distort the market via misuse of market power. While it is pleasing to note the ERA is continuing to focus on market power as part of its market monitoring and enforcement obligations, there is insufficient evidence provided in the ERA's WEM effectiveness paper to enable Perth Energy to comment. We look forward to the ERA publishing the findings of its July 2017 inquiry into Synergy's pricing behaviour as soon as possible.

Perth Energy considers further analysis on the effectiveness of the market as a whole is warranted, and urges the ERA to engage with stakeholders, including the Public Utilities Office to ensure that the findings contained in this review are fully justified, and the ERA's views are able to be used as an input into the broader processes currently underway to evolve the WEM.

We reiterate that the ERA is well-placed to make a meaningful contribution to the continued evolution of the market, and request the ERA publishes its views on the future of the WEM in the final version of its 2017/18 WEM effectiveness report.

We welcome further discussion with the ERA on these matters.

Should you have any questions in relation to this submission please contact me on [REDACTED] or at [REDACTED].

Regards,

Elizabeth Aitken
General Manager Operations



Appendix A: Responses to specific questions from the ERA

Issue: Wholesale electricity prices have continued to rise in spite of downward pressure from demand and fuel prices.

Question: What other factors may be driving up wholesale electricity prices if not demand or fuel costs?

Perth Energy highlights that the ERA's assertion in relation to the market issue is that there is an increasing trend in all prices over the period. Our analysis indicates this is not the case. Instead we found that, while average prices were higher, the spread of prices has increased. This indicates increased volatility in the market, and therefore prices, rather than an across-the-board increasing trend.

Average annual prices may be a convenient method of assessing market outcomes, but they reflect long-run outcomes and do not provide sufficient granularity to determine the underlying drivers of short-term pricing decisions. Data published by financial year fails to show some of the more important influences on the market and market prices, including seasonal trends, outages, weather, fuel volatility, network tariffs, the capacity price and major contract terms.

Perth Energy recommends the ERA analyse the price outcomes on a more granular level than an annual average price to provide better visibility of the volatility and drivers of specific events and any emerging trends.

We believe that fuel costs are, and will continue to be the largest driver in trends in the cost of electricity generation.

The ERA asserts that fuel prices have decreased, and this should have placed downward pressure on prices. Similarly to our comments about average annual prices, we highlight that a crude, average metric such as the current spot gas price is unlikely to be representative of the cost of fuel in the WEM. It may show a downward trend in the short-term price of uncontracted gas. However, on a volume weighted basis, the majority of fuel costs in the WEM are driven by long-term, large-scale contracts. This is primarily because the WEM Rules require proof that facilities have adequate fuel and transport contracts three years in advance.

The current spot price for gas is unlikely to be reflective of the cost that most parties incur on an ongoing basis. This is because it is more akin to a secondary market, where short-term, low-volume, low-price trades are made. The use of this price as a proxy for fuel costs therefore is not reflective of long-term contractual prices. While the short-term price of gas is currently lower than the long-term contract prices, the reverse exists in other markets.

Perth Energy acknowledges that much of the information in relation to long-term gas contracts is commercially sensitive, so unlikely to be made available by Market Participants. On this basis, we recommend the ERA use the spot prices from 2015 which is when any new contracts (of around three-



years) would have been negotiated. While this cannot account for the impact of the cost of fuel contracted over the longer term, we consider it to be the best publicly available information on which to derive a generation fuel cost.

We recommend the ERA also considers the following as other costs that could be driving prices in the WEM:

- **The cost of fuel imbalances due to the lack of certainty regarding operation.** Parties are unable to accurately predict the fuel requirement with sufficient certainty to make nominations for gas supply and transport as a result of the combination of poor forecasting and in the shorter-term the long gate closure in the WEM.
- **The use of energy vs load following quantities from the Balancing Portfolio to manage real-time imbalances.** The operation and dispatch decisions relating to the Balancing Portfolio are not transparent. This coupled with the poorly defined boundary between energy and load following services in the WEM means that the balancing and load following quantities and prices are unlikely to be an accurate and consistent representation of the requirement in the WEM for any period.
- **Variations in the use of the term fuel “cost”.** The continued question of what costs (e.g. actual cost, financial cost, economic cost, opportunity cost) are permissible to be included in the calculation of a facility’s short run marginal cost could result in significant variations in prices.
- **Out-dated market, system and network operations systems and processes.** The current market and dispatch systems are no longer fit for purpose, including that they require largely manual processes and decisions that may not reflect economically efficient market outcomes.

Issue: As the penetration of renewable energy behind the meter increases, it is altering the load profile serviced by generators in the WEM. This alteration has the potential to increase costs.

Question: Do Market Participants consider generators are changing their bids into the balancing market to recover higher start-up and shut down costs over shorter run times?

Perth Energy considers the ERA’s assertion that the change in load profile resulting from an increase in renewable energy behind the meter is a driver of cost appears reasonable.

The increasing volatility in demand necessarily drives an increasing volatility in generation without any significant storage capability in the WEM. The limited capability to forecast behind the meter generation accurately, coupled with the fast-pace of changes in load resulting from variation in fuel sources has undoubtedly increased the overall cost of traditional generation.

Moreover, the market is experiencing the same volatility on the generation-side. Large-scale (in front of the meter) renewable generation sources have an inherent variation in the amount of electricity they are able to produce due to the fuel source being intermittent. While there have been improvements in forecasting the output of these facilities, real-time variations in electricity supply resulting from variation in fuel sources has undoubtedly increased the overall cost of traditional generation.



We expect that, as the run-times for some of the more marginal facilities shortens, there will be an increase in their costs as they need to recover start-up and shut-down costs over fewer intervals. We also expect that as traditional generators are required to be more flexible within and between intervals, Market Participants will incur additional costs resulting from sub-optimal operations (e.g. running at minimum generation or excessive ramping) that will need to be recovered. This will increase prices.

Perth Energy highlights that while the cost of managing the volatility caused by intermittent generation has increased the cost of traditional generation sources, this has been offset (to some extent) by the low variable cost of renewable generation sources. This results in more variable price outcomes.

Issue: The WEM is highly concentrated. Synergy is dominant through its own generation plant and power purchase agreements with other generators. There is insufficient competitive discipline on Synergy to keep wholesale prices down. Infra-marginal generators, which are dispatched with bids below the balancing price, benefit from these higher balancing prices.

Question: Is the market applying sufficient pricing discipline on generators in light of the high level of concentration in the WEM?

Question: Aside from disaggregation, what other measures could improve competitive discipline in the WEM? How would these measures work?

Perth Energy has made regular submissions supporting the ERA's findings and recommendations in relation to its annual review of the effectiveness of the Electricity Generation and Retail Regulatory Scheme for the purposes of market power mitigation.

In the absence of wholesale changes to the structure of Synergy, Perth Energy supports the ERA's recommendations to:

- reduce the buy-sell spread of Synergy's standard products;
- require terms that are consistent with other energy contracts, so as not to force potential trading partners to negotiate bespoke products;
- increase transparency of Synergy's wholesale market operations, transactions, and outcomes; and
- strictly ring-fence Synergy to require trading between the generation and retail business units, rather than using the wholesale business unit as a bridge, which has access to commercial information of both units, and the interests of Synergy prioritised over third-parties.

Perth Energy notes that there are a number of alternative measures that would place additional scrutiny on Synergy to ensure that it was not intentionally or unintentionally affecting market outcomes including:

- capping and reducing the amount of generation Synergy can directly (through ownership or investment) or indirectly (by contracting) control;
- reducing the size of Synergy's price-quantity pairs to reverse the recent trend towards large tranches that significantly affect the dispatch and pricing of the market;



- requiring Synergy to start removing facilities from the Balancing Portfolio and bidding them as stand-alone facilities to increase transparency;
- requiring more transparency in relation to the dispatch decisions made by AEMO, including justification where appropriate of any unusual or high impact events such as the activation of back-up load following or load rejection reserve quantities;
- reducing balancing gate closure and other similar bidding windows to allow participants, including Synergy, access to more accurate forecast information, resulting in more accurate bids and offers and therefore more efficient prices; and
- removing the inherent partiality towards Synergy from Western Power to remove the barrier to the entry of new markets that currently exists to prevent private sector participants innovating and expanding their businesses to capture new and evolving markets.

Electricity markets have always been more vulnerable than others to the exercise of market power as a result of the short-term inelasticity of demand. Perth Energy considers effective market outcomes can only be achieved through the promotion of accurate and transparent market information.

Issue: The future investment environment in the WEM may not be conducive to continued third-party investment. This may leave the State Government responsible for funding or underwriting future generation investments.

Question: Are market participants satisfied that innovation trials are sufficiently open to participation from entities independent of government?

Question: To what extent do market participants rely on, or derive benefit from, the electricity statements of opportunity in planning and investment decisions?

Question: Should market participants signal intended or probable plant retirements at least three years in advance, as has been suggested in the National Electricity Market; or, should the market operator undertake its own analysis of the probable plant exit dates?

Question: If not advanced notice of plant retirements, what other mechanisms could be used to signal investment opportunities and improve the operation of the capacity mechanism?

Question: To what extent do policy uncertainty and behind-the-meter changes in generation and storage influence decisions to develop projects in the WEM?

Question: Do market participants consider the investment environment in the WEM is challenging? If so, why?

Question: Do market participants consider the investment environment in the WEM will improve or worsen over the short to medium term? If so, what factors will drive this change?

Question: What is the likelihood that the State Government will need to invest to replace generation assets?

Question: What could organisations such as the ERA, AEMO, Western Power and the State Government reasonably do to improve the investment environment?



In addition to our comments and recommendation in relation to the mitigation of market power, Perth Energy notes the following:

- The majority, if not all innovation trials conducted in the South West Interconnected Network have been run with a consortium including both Synergy and Western Power. This is because:
 - the legislative framework prohibits any small-use customers being supplied by a retailer other than Synergy;
 - Western Power actively engages with Synergy in preference to a private sector participant in relation to its participation in the WEM; and
 - information on innovation and trials is not shared, nor is it required to be.
- The Electricity Statement of Opportunities is useful information to provide to third-parties for financial purposes. While the forecasts have improved over time, there is still room for improvement in relation to:
 - accuracy of the forecasts themselves, in particular as AEMO looks to bring the forecasts in-house; and
 - the integration of the gas and electricity statement of opportunities to ensure a complete picture of the energy sector is available and the assumptions underpinning both are consistent.
- Perth Energy considers Market Participants should signal intended retirements through Reserve Capacity Mechanism certification process. In recent years the certification process has been delayed to defer the issue of property rights with an uncertain WEM design. Arguably this has delayed notification of retirements to the market. However, the only recent retirements have been the result of a Ministerial decision, rather than investment decision of a private sector participant. While this could be mandated in the WEM Rules, it is unclear what recourse would be available for non-compliance, or the materiality of any benefits.
- Stability in the design of the RCM is critical to its effective operation. The impact of making frequent, fundamental changes to market mechanisms that determine revenue streams for all market participants should not be taken lightly. Continual, material changes to the RCM have worked to not only dissuade investment in certain types of plant in the WA energy sector, but also raises questions about the commerciality of existing assets. Further, Synergy's significant proportion of generation in the WEM, coupled with the design of the RCM results in Synergy effectively setting the price. If a private sector participant was in the same situation, arguably, it would be incentivised to reduce its capacity to increase the capacity price to optimize its position overall. In turn, this would reduce the investment risk for any other generators.
- The investment environment in the WEM is challenging. Policy uncertainty and other environmental factors significantly influence investment decisions. The current and likely future operation of any market is the key factor used in the first stage of any investment decision.
 - The Federal Government has signaled an East-Coast specific carbon reduction scheme, which would result in WA potentially needing to meet its own targets from within the State. This would have a significant impact on the amount of generation capacity in the SWIS and affect market outcomes.
 - With the history of failed reform through the previous Government's Electricity Market Review, and no clear direction from the current Government, investors cannot



guarantee that any business case developed now would continue to be commercial in the short term.

While the fundamental design of the market is in flux, the investment environment will continue to worsen. It is only with an increase in certainty, including through a period of consistent market outcomes from the new framework that the investment environment can be expected to improve.

- Perth Energy does not consider the operation of the market is delivering the benefit to customers that it should. We consider this is primarily because the market structure prevents competition, and the market systems and process are no longer fit for purpose. Any reform process will need to deliver structural changes to increase competition and participation, being mindful of the size of the market.



Perth Energy Pty Ltd

(08) 9420 0300
info@perthenergy.com.au
24th Floor, The Forrest Centre,
221 St Georges Tce, Perth WA 6000
ABN 39 087 386 445

perthenergy.com.au