



Wholesale electricity market performance monitoring

2020 Focus

November 2019

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Introduction

The AER has powers under the National Electricity Law (NEL) to undertake regular, comprehensive, longer-term assessments of the performance of wholesale electricity markets.¹ We will provide our next biennial comprehensive report on the performance of Australia's wholesale electricity markets to the Council of Australian Governments Energy Council (COAG EC) in December 2020.

We will report on whether:

- there is effective competition in the wholesale market, or there are features of the market that may be detrimental to effective competition
- there are features of the market that may compromise the efficient functioning of the market.

This *2020 Focus* provides an overview of the context of the *Wholesale electricity market performance report 2020* (2020 performance report), the areas we intend to focus on in our analysis, and the framework and tools we intend to apply. The *2020 Focus* also sits alongside our enduring statement of approach,² which outlines the general approach we take in monitoring the performance of the market, including:

- the framework for our analysis
- how we define effective competition and efficiency
- the way we will collect and use information

In future reports, we expect the wholesale markets will evolve and the issues we focus on will change.

We have other reporting obligations across our wholesale, retail and network areas in addition to these functions. Our other wholesale reports generally focus on short term outcomes, compliance issues and individual price events. In contrast, this biennial report allows us to take a longer term view of the market, with a focus on competition and efficiency issues.

Consultation on draft

On 4 October 2019, we published a draft 2020 Focus for consultation with stakeholders until 25 October 2019. In response, we received one submission from EnergyAustralia, which we have had regard to in developing this 2020 Focus. We provide our response to EnergyAustralia's submission in Appendix A.

¹ NEL, Part 3, Division 1A

² AER. [Wholesale electricity market performance monitoring - Statement of approach.](#)

2020 performance monitoring

Electricity markets in Australia continue to transform, driven by technological change. As the existing large scale generation fleet continues to age and exit the market, reliability and security of supply continues to be of primary concern. A number of initiatives and reforms have been implemented or proposed to help address these concerns.

The Retailer Reliability Obligation presents new implications for the market, and is designed to address the need for increased investment in dispatchable resources. Increased penetration of intermittent renewable generation is promoting development of storage technologies and the proposed implementation of a wholesale demand response mechanism could further affect market dynamics.

Into the future, work is also underway to determine what the National Electricity Market (NEM) will look like post 2025. This work aims to identify changes to ensure the market framework remains fit for purpose to deliver outcomes for the long term interests of consumers.

Given the extent of change and transition in the energy sector, the current and future competitiveness and efficiency of wholesale electricity markets remain an important area of focus.

The framework we will use

We must monitor the markets to assess whether there is effective competition, and if they are functioning efficiently. The overall framework we will use for our analysis will be the structure-conduct-performance approach, as set out in our statement of approach.³

In our statement of approach we identified a number of measures to provide consistent analysis between performance reports. We prioritised these measures on the basis of robustness, accessibility, practicality and probative value.

We will carefully communicate the use and interpretation of any additional tools we may use.

On 15 November 2019 we released our first wholesale markets quarterly report. These reports will be a critical tool in identifying emerging issues in the market that we will explore in the 2020 performance report. For example, our first quarterly report identified changing participant behaviour during periods of negative prices as an emerging issue that we will examine further in our assessment of generator conduct. Also, should we release any special reports as part of our monitoring of the wholesale electricity market, that analysis will be incorporated into the 2020 performance report.

In undertaking these monitoring and reporting functions, we must use publicly available information in the first instance, but can request confidential information if we identify an issue. For the 2018 performance report we also met with stakeholders to inform our analysis

³ AER, Wholesale electricity market performance monitoring, Statement of approach, p 11.

and intend to do so again for our 2020 monitoring. Our statement of approach identifies how we intend to address information gathering and confidentiality.

Finally, chapter 7 of the 2018 performance report identified a number of issues that required further monitoring and analysis.⁴ We have used these in informing our areas of focus in 2020.

Markets we will focus on in 2020

There are a wide a range of products and services we could consider in our analysis. In addition to analysing the wholesale electricity spot market, in 2020 we will also consider the following:

- Frequency Control Ancillary Services (FCAS) — The 2018 performance report found that FCAS costs have increased, partly as a result of the changing generation mix. In addition, lack of competitive pressure in some local markets contributed to increased FCAS costs. In the 2018 performance report we expected to see these conditions improve, so it is important we reassess them. We will also consider the impact of any potential or impending rule changes or changes in market operation, when conducting our analysis. Furthermore, examining competition and the efficiency of FCAS markets builds on our new function to report quarterly on FCAS outcomes.⁵
- Derivatives products — The 2018 performance report found that while the products traded on the Australian Securities Exchange (ASX) are public information, there is still limited visibility regarding bilateral over-the-counter (OTC) transactions. Due to this, it is difficult to quantify how liquidity in these contracts markets has changed over time. We will continue to look to improve transparency surrounding these markets, including engaging with the Australian Financial Markets Association and other third-party information sources, such as brokers. Where possible we will analyse the performance of these markets and their effect on the wholesale electricity market.
- Demand side participation — The 2018 performance report found that there is limited market based demand response in the NEM, but its influence may grow over time. This was reinforced by market participants, who expressed an interest in developing demand side participation. We will explore ways to report on the effect of recent and proposed developments in demand side participation on the wholesale electricity and FCAS markets, using public data and through engaging with stakeholders. As part of this we will examine the impact of the Reliability and Emergency Reserve Trader (RERT) function, and its impact on market-driven demand side participation, which was raised in the 2018 performance report.
- Upstream fuel markets — The 2018 performance report found that generators had increased their offers at the same time fuel costs were increasing, but in some cases the increase in fuel costs did not fully account for the increased prices. Since 2018, the cost and availability of these key fuels, such as coal and gas, continue to fluctuate. As these are significant inputs, it is important we fully understand the extent that changes in upstream fuel markets are affecting outcomes in the wholesale electricity markets.

⁴ AER, Wholesale electricity market performance report 2018, p 63.

⁵ From 2020, the AER will be required to report quarterly on trends and outcomes in FCAS markets.

Issues we will focus on in 2020

We have separated the issues we will focus on according to our structure-conduct-performance framework.

Structural issues

Our 2018 performance report found that ownership in each region is concentrated, and a number of market outcomes appeared to be the result of a lack of competitive constraint. Accordingly, we will continue to examine the structural factors that may provide a competitive constraint on the behaviour of market participants, as well as those factors that may facilitate the exercise of market power. We will do this by considering and building on the range of structural factors identified in our statement of approach and used in the 2018 performance report.

The 2018 performance report found that the market is undergoing significant transformation, with a changing generation mix, and new products and markets emerging. In 2020, we intend to assess the implications of the changing generation mix for competition, particularly as a result of the increased penetration of renewable generation technologies. The 2018 performance report also noted that as the market continues to transform, flexible technologies are likely to play an increasingly significant role. As such, we are interested in examining the effect developments in flexible capacity, firming products and dispatchable generation sources are having on the broader market.

We will continue to monitor liquidity in contract markets and the impact of efforts made to enhance contract market liquidity.

Conduct issues

Our analysis of participant behaviour in the 2018 performance report identified the offer behaviour of black coal participants in Queensland and New South Wales as an issue requiring further monitoring. While we will continue to assess trends in offers from these participants, our analysis will also consider the offers from various other technologies, including gas and renewables.

In addition, we intend to gather information on costs from participants to inform our analysis in 2020. We will consider the results of this analysis with regard to other potential factors that may influence generator offer strategies. This will form part of our broader assessment of generator conduct and how the changing market dynamics are impacting participant behaviour.

Performance issues

Our statement of approach identifies two possible approaches for estimating costs when assessing whether prices are determined by underlying costs in the long run. In the 2018 performance report, we used Levelised Cost of Energy (LCOE) estimates and found that price signals for new entry appear to be emerging. In the 2020 performance report, we will continue to use LCOE estimates to analyse the relationship between prices and underlying

costs. We will also expand our analysis and explore using Levelised Cost of Storage (LCOS) estimates to encompass storage technologies.

The 2018 performance report also identified a range of potential barriers to entry, and impediments to efficient price signalling in the NEM. For 2020, we will continue to examine incentives and trends for investment in the NEM, particularly in flexible generation capacity. We may also consider the impact of reforms and policy developments intended to improve competition in the sector that have been proposed or recently implemented.

Appendix A: Consultation on draft

On 4 October 2019, we published a draft 2020 Focus for consultation with stakeholders, and in response we received one submission from EnergyAustralia.

In its submission, EnergyAustralia addressed the issues of derivatives products, demand side participation, FCAS, and participant conduct. We summarise EnergyAustralia's submission, and our responses, by issue below.

Derivatives products

EnergyAustralia suggested that if we seek greater visibility regarding OTC trades, we should engage with AFMA to seek to change its survey requirements, and be cognisant of complexities in analysing OTC contract data.

We appreciate EnergyAustralia's reasoning for urging caution in seeking to understand commercially sensitive OTC transaction data. However, our 2018 performance report identified this as an important issue as publically available data suggests trade in contract markets has fallen in recent years, and the market is not liquid in South Australia. Contract markets need to be liquid to support an efficient market.

In addition, as identified by EnergyAustralia, the AEMC and ACCC have examined contract markets and found a need for greater transparency to better support market liquidity. Both agencies noted particular concern with the contract market in South Australia, with potential impacts on competition. As such, we will continue to monitor contract markets in 2020 and seek to improve transparency, where possible.

Demand side participation

EnergyAustralia suggested we analyse the effect of developments in the demand side participation market on the wholesale electricity and FCAS markets, and the contribution to any avoided network investment costs. It also noted our proposed focus on the impact of the RERT, and suggested we adopt an evidence-based approach to our assessment that utilises stakeholder surveys and data analysis, and engage with retailers where possible. Finally, EnergyAustralia proposed our analysis should also account for the potential impact of the wholesale demand response mechanism, if introduced, and the effect on new entry and competition.

Our 2018 performance report identified a number of pending developments in demand side participation, and the potential for its influence in the market to grow. We agree with EnergyAustralia and we will explore ways to report on the effect of recent and proposed developments in demand side participation on the wholesale electricity and FCAS markets, using public data and through engaging with stakeholders.

While the information submitted to AEMO's demand side participation portal may be useful, our obligations require us to use public information in the first instance, which may limit our

ability to draw on this data.⁶ Also, reporting on the compliance with portal requirements is outside the scope of our performance monitoring, which focusses on efficiency and the effectiveness of competition.

FCAS

EnergyAustralia requested we identify the impact of AEMO's changes to load relief in our analysis. It also noted the proposed rule change to mandate primary frequency control, and suggested we consider this rule and its potential effects.

For the 2020 performance report, our FCAS monitoring will draw on and add to our new quarterly reporting obligation. Where relevant, we will consider the impact of any potential or impending rule changes or changes in market operation, when conducting our analysis.

Participant conduct

In monitoring the offer behaviour of black coal participants in particular, EnergyAustralia requested that we recognise that there may be other drivers than cost that influence increases in offers.

We agree, and understand that a range of factors influence generators' offer behaviour, and will consider this as part of our analysis.

Consultation

In addition, EnergyAustralia noted the benefit of consultation, particularly informal discussion, as we conduct our analysis and request information. We agree with the merits of a consultative approach and as with the 2018 performance report, we intend to meet and discuss issues with participants and stakeholders across 2020 as we perform our analysis.

⁶ NEL, Part 3, Division 1A, Section 18D.