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Energy Policy WA

Directions Report

Clarifying Short Run Marginal Cost and market offer requirements in the Wholesale Electricity Market

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Abbreviations

The following table provides a list of abbreviations and acronyms used throughout this document. Defined terms are identified in this document by capitals.

Term	Definition
AEMO	Australian Energy Market Operator
EPWA	Energy Policy WA
ERA	Economic Regulation Authority
LFAS	Load Following Ancillary Services
SRMC	Short Run Marginal Cost
STEM	Short Term Energy Market
SWIS	South West Interconnected System
WEM	Wholesale Electricity Market
WEM Rules	Wholesale Electricity Market Rules

Executive summary

Ensuring the efficient operation of the Wholesale Electricity Market (WEM) is critical to allowing electricity consumers in the South West Interconnected System (SWIS) access to cost-effective, secure and reliable electricity supplies.

The WEM Rules include provisions to protect against generators with large market shares, or who hold particular assets that are critically required at particular times, from making unreasonable offers and increasing wholesale electricity prices above efficient levels.

Short Run Marginal Cost (SRMC) is used as the appropriate pricing benchmark at which offers should be made. This is consistent with economic theory, which holds that this is the price which would be offered in a fully competitive market where no participant is able to exercise market power, and is the lowest sustainable price required to ensure the ongoing viability of market participants.

Under the WEM Rules, penalties may be applied to Market Participants who do not submit offers consistent with their understanding of the SRMC of these energy supplies being offered to the market, where that behaviour relates to market power.

Market Participants have consistently requested clarification around market offer requirements to reduce uncertainty as to the validity of offers being made.

In this context, the Minister for Energy has requested that Energy Policy WA (EPWA) consider whether amendments to the WEM Rules may be required to provide greater clarity around SRMC related offer requirements. EPWA engaged The Brattle Group, an internationally-renowned economic consultancy specialising in market power mitigation in energy and other markets, to provide advice on this matter.

This Directions Report sets out EPWA's considerations of the key findings of The Brattle Group's report *Implementing Recommended Improvements to Market Power Mitigation in the WEM* (the Brattle Report), also available from the EPWA website.

EPWA recommends that amendments to the WEM Rules are made to clarify the:

- concept of SRMC in the WEM Rules by inserting a definition in Chapter 11 (Glossary); and
- market power mitigation processes in the WEM Rules where a generator has market power and may have exploited that market power to raise prices above competitive levels.

EPWA has also prepared these proposed amendments to the WEM Rules (outlined in section 4 of this report), to be released for stakeholder consideration as part of this Directions Report. It is intended that following stakeholder consultation a finalised set of rule amendments will be made by the Minister under Regulation 7(5) of the Electricity Industry (Wholesale Electricity Market) Regulations 2004.

1. Introduction

Short Run Marginal Cost (SRMC) is an economic concept that is critically important to the effective operation of the market power mitigation regime in the Wholesale Electricity Market (WEM). Where offers are made and markets settle at efficient marginal costs, economic theory suggests that commodities will be put to their best use (not under or over-consumed), while producers will not unreasonably profit from their supply.

The Economic Regulation Authority (ERA) has previously sought to provide clarification of its interpretation of the economic concept of SRMC in published guidelines[1]. However, the concept is not defined in the WEM Rules and there remains confusion amongst Market Participants as to what costs can be included in market offers.

A consultancy report prepared by The Brattle Group in 2016 to advise the former Public Utilities Office on potential improvements to market power mitigation mechanisms in the WEM, recommended that the SRMC concept be expressly defined in the WEM Rules[2]. While the then Public Utilities Office did not recommend any specific changes or clarifications to SRMC offer provisions, it proposed to conduct a more extensive study to clarify these obligations and develop supporting guidelines as part of its implementation work program for the previous Government's Electricity Market Review[3].

To date however there has been no development of the required WEM Rule amendments or of legally binding procedural guidelines on this matter, and Market Participants continue to seek clarification in this regard. In this context, the Minister for Energy has asked Energy Policy WA (EPWA) to review the concept of SRMC as expressed in the WEM Rules and advise on the need for any changes to these provisions to improve market certainty.

EPWA engaged The Brattle Group to provide further expert advice on this matter (extending its 2016 analysis) and outline recommended improvements to the WEM Rules. The Brattle Group's report *Implementing Recommended Improvements to Market Power Mitigation in the WEM* (the Brattle Report), is also available from the EPWA website.

Following assessment of this further analysis, EPWA considers that with the proposed refinements to the WEM Rules outlined in this report, SRMC offer requirements will remain as an effective and necessary part of the WEM market power mitigation regime.

[1] Guideline to inform Balancing Market offers, Economic Regulation Authority, 22 February 2019, available at https://www.erawa.com.au/electricity/wholesale-electricity-market/balancing-submission-guideline
Short Run Marginal Cost – Simplified Paper, Economic Regulation Authority, 23 December 2009, available at https://www.erawa.com.au/electricity/wholesale-electricity-market/regulatory-papers/2008-interpretation-of-short-run-marginal-cost
Short Run Marginal Cost – Discussion Paper, Economic Regulation Authority, 11 January 2008, available at https://www.erawa.com.au/electricity/wholesale-electricity-market/regulatory-papers/2008-interpretation-of-short-run-marginal-cost
Portfolio Short Run Marginal Cost of Electricity Supply in Half Hour Trading Intervals – Technical Paper, Economic Regulation Authority, 11 January 2008, available at https://www.erawa.com.au/electricity/wholesale-electricity-market/regulatory-papers/2008-interpretation-of-short-run-marginal-cost

[2] The consultancy report was commissioned by the former Public Utilities Office as part of the Electricity Market Review.

[3] Information Paper: Market Power Mitigation Mechanisms for the Wholesale Electricity Market – Public Utilities Office, October 2016.

2. SRMC related offer requirements

2.1 Market power mitigation arrangements within the WEM

In its 2016 Report, The Brattle Group noted that the aim of an effective market power mitigation regime is to recreate the maximally efficient outcome of a competitive market. It also noted that in a market such as the WEM, featuring a capacity mechanism that complements the energy market, energy offers should ideally reflect a supplier's SRMC for making these generation supplies available.

As the market power mitigation framework in the WEM operates on an ex-post basis, it relies on the regulator, the ERA, monitoring generator bidding behaviour after the fact. The WEM uses the concept of SRMC as a mechanism to prevent generators with market power from raising prices above the level that would be seen in a perfectly competitive market.

Given these considerations, The Brattle Group has proposed that the regulator's limited resources be focused on generator behaviour that is most likely to have an impact on prices (i.e. behaviour by generators with market power that may have increased prices above competitive levels)[4]. This affirms the requirement for generators with market power to not be permitted to make an offer above their SRMC of generating these supplies, while generators without market power should be permitted to offer at any level (noting that a prudent generator without market power would nonetheless choose to limit offers to its SRMC)[5].

The Brattle Report also proposed that the costs which would likely form part of a generator's SRMC should include all costs of generating energy that are 'marginal' over a dispatch cycle. In this context marginal means that the costs would not have been incurred if the generator had been available but not running. The SRMC of generation supplies would therefore include, but not be limited to:

- fuel and non-fuel start-up costs amortised over a reasonable expectation of output;
- all fuel costs incurred once the unit is started up;
- variable operating and maintenance costs; and
- any opportunity costs, such as the opportunity cost of fuel that could otherwise have been sold[6].

The Brattle Group considers that failing to account for these costs in forming a competitive offer would not maximise profits for a price-taking supplier lacking market power and would therefore lead to uneconomic operating decisions[7].

EPWA agrees with this analysis and supports the intended definition of SRMC as being those costs that a supplier without market power would include in its profit-maximising offer.

Recommendations

1. **The SRMC of generation supplies should be defined as being those costs that a supplier without market power would include in its profit-maximising offer.**
2. **The Wholesale Electricity Market Rules should be amended to reflect this definition of SRMC.**

[4] The Brattle Report, page 5.

[5] ibid, page 5.

[6] ibid, page 4.

[7] ibid, page 4.

2.2 Further defining SRMC

The Brattle Group also examined complexities related to the WEM characteristics and market offer practices that mean that it is not straightforward to identify the costs that a generator without market power would include in its profit-maximising offer. The particular matters considered included fuel prices (with a focus on the Western Australian gas market) and other non-fixed costs (such as those associated with generator start-up and the Load Following Ancillary Services (LFAS) market). These matters are discussed below in Sections 2.2.1 to 2.2.3.

2.2.1 Fuel prices and opportunity costs

The Brattle Group identified that the Western Australian natural gas market is not sufficiently transparent to provide a reliable cost estimate, meaning that it can be difficult to identify an appropriate gas price for fuel cost inputs in the determination of SRMC of generation supplies. In particular, the spot price of gas has been consistently below average long-term contract prices and the gas spot market is not sufficiently liquid[8].

How a profit-maximising generator without market power will behave when making its supply offers, will depend on whether the generator is constrained by the availability of gas, has excess contracted gas supplies and/or has long term supply contracts (and whether they are of a take-or-pay nature). That generator's behaviour will also depend on the nature and liquidity of the fuel market from which the generator takes these gas supplies.

Given these complexities, The Brattle Group did not consider that it would be possible to specify in the WEM Rules any mechanical relationship between fuel prices and offers, other than that a generator with market power should not exploit that market power to raise prices above competitive levels[9].

EPWA agrees with this position.

2.2.2 Non-fixed costs (such as start-up costs)

In addition to the difficulty in determining fuel cost inputs, The Brattle Group identified that while some costs that a generator without market power would include in its profit maximising offers are not a linear function of generator output, the WEM arrangements oblige a generator to make linear offers. That is, a generator must offer a $/MW price for each trading interval in which it is available to make supply[10].

The Brattle Group noted the importance of each generator being able to recover all of its start-up and other non-fixed costs by fully reflecting these cost components in their offers, while also noting that in making offers they should not over-recover against these costs[11]. A generator without market power would attempt to predict its future running patterns and divide start-up and other non-fixed costs over anticipated output accordingly[12].

[8] The Brattle Report, pages 9 - 10.

[9] ibid, page 13.

[10] ibid, page 7.

[11] ibid, page 7.

[12] ibid, page 15.

EPWA agrees with this analysis indicating that:

- a profit-maximising generator without market power will consider all non-fixed costs when setting its offers; and
- the amortisation of these costs over trading intervals in which the generator is dispatched cannot be known with certainty in advance.

2.2.3 Load Following Ancillary Services

Under the current LFAS market arrangements within the WEM, generators submit offers in a similar way to the energy market. However, the LFAS market clears first, before the energy market, as it is impossible for a generator to simultaneously provide energy in each market. Because of this, providing LFAS has an energy opportunity cost, as when a unit of energy is earning LFAS revenue it cannot also be earning revenues in the energy market[13].

EPWA agrees with The Brattle Group that a generator should be able to include all of its non-fixed costs in its offers, which for LFAS offers includes the opportunity cost of not selling the corresponding unit of energy into the energy market and receiving the energy price (net of fuel and other components of SRMC)[14].

EPWA also agrees with The Brattle Group that the reference to "the incremental change in short run marginal cost" at Rules 2.16.9(b)(iii), 2.16.9B, 2.16.9G and 7B.2.15 of the WEM Rules, is incorrect and that these rules should be amended to be consistent with the other rules which require generators not to offer above SRMC[15].

Recommendation

3. The proposed definition of SRMC to be included in the Wholesale Electricity Market Rules should not include reference to the individual building blocks/cost components because:

- **each generator's SRMC will depend on the particular circumstances surrounding its position in the market, which may vary from time to time; and**
- **the state of the energy market in Western Australia is fluid and may change over time, particularly in relation to fuel prices.**

Section 4 of this report sets out EPWA's proposed changes to the WEM Rules to further define SRMC and clarify market offer requirements.

[13] The Brattle Report, page 15.

[14] ibid, page 17.

[15] ibid, pages 16 - 17.

3. Market power monitoring in the WEM

3.1 Market power in a trading interval

In the WEM, offers are made by a range of generators for any given trading interval. Offers up to the settlement price (the price of the marginal unit of generation) are accepted. Only offers that affect the settlement price determine market prices. Generators whose facilities are required to meet demand for the trading interval regardless of the offers of other generators, are considered to have market power, because their offers can always affect the settlement price.

If a generator's offer, for a single trading interval, is priced above the generator's reasonable expectation of its SRMC of generating the relevant electricity, this will be enough to trigger a breach of clause 7A.2.17 of the WEM Rules, where such behaviour relates to market power[16]. There is no express requirement that market power be significant or sustained, any market power is of concern under clause 7A.2.17 of the Market Rules.[17]

In its report, The Brattle Group recommends the phrase "when such behaviour relates to market power", which currently appears in the WEM Rules (and similar phrases), be removed because it is not clear what the expression means and could be seen to require establishing intent on the part of a market participant with market power, which is a difficult concept to prove at law[18].

EPWA agrees that the ERA's focus should be on ex-post enforcement on generators who have market power and have used that market power to raise prices above competitive levels. This is a more objective approach focusing on the effect of behaviour, rather than possibly requiring proving the intent of the market participant in relation to the behaviour.

It is proposed that Rules 2.16.9(b), 2.16.9B, 2.16.9G, 6.6.3, 7A.2.17 and 7B.2.15 be amended to remove the phrase "when such behaviour relates to market power". Further, EPWA recommends clarifying that the relevant timeframe which the ERA must assess, is a single trading interval. The relevant WEM Rules should instead read that "…a Market Participant must not, for any trading interval <u>in which the Market Participant has market power, offer prices…</u>".

It therefore follows that there will be no contravention of Rules 6.6.3, 7A.2.17 or 7.B.2.15 if, for the relevant trading interval, the generator does not have market power and offers in excess of its reasonable expectation of the SRMC of generating the relevant electricity.

EPWA considers these changes clarify the requirements of the WEM Rules when offering prices in a generator's Portfolio Supply Curve, Balancing Submission or LFAS Submission.

EPWA supports The Brattle Group's recommendation to make clear in the WEM Rules that the ERA should investigate whether generator offers are above SRMC if:

- the generator has market power; and
- it considers that the generator may have exploited its market power to raise prices above competitive levels[19].

[16] Guideline to inform Balancing Market offers, Economic Regulation Authority, 22 February 2019, page 8, available at https://www.erawa.com.au/electricity/wholesale-electricity-market/balancing-submission-guideline

[17] ibid, page 8.

[18] The Brattle Report, page 18.

[19] ibid, page 5.

Accordingly, EPWA recommends Rules 2.16.9(b), 2.16.9B and 2.16.9G be amended to expressly refer to the exploitation of market power to raise prices above competitive levels, rather than the less specific concept of "behaviour related to market power".

EPWA does not support defining the term "market power" in the WEM Rules on the basis that the ERA as a regulator should have the scope to determine the circumstances where market power exists and whether a generator's behaviour has raised prices above competitive levels and, if necessary, mount a case to support that determination.

The ERA employs various screens in carrying out its monitoring and enforcement role, to form conclusions and make these determinations. EPWA agrees with The Brattle Group that it is not appropriate to hard wire the design of these screens into the WEM Rules[20].

Recommendations

4. **The Wholesale Electricity Market Rules should be amended to remove references to the term "when such behaviour relates to market power".**
5. **The Wholesale Electricity Market Rules are modified to make it clear that the Economic Regulation Authority should be required to investigate whether a generator's offers are above its reasonable expectation of the SRMC of generating the relevant electricity, if:**
   - **the generator has market power; and**
   - **it considers that the generator may have exploited its market power to raise prices above competitive levels.**
6. **That the Wholesale Electricity Market Rules are modified to make it clear that if the Economic Regulation Authority determines that a generator had market power and exploited its market power to raise prices above competitive levels, it may bring proceedings before the Electricity Review Board.**

3.2 Consequential amendments relating to market power

At present, there is inconsistency of language in the WEM Rule provisions which refer to SRMC. EPWA recommends the relevant WEM Rules be amended to consistently reflect that generator offers <u>must not exceed</u> a generator's reasonable expectation of the SRMC of generating the relevant electricity, for any trading interval in which the generator has market power.

These amendments will ensure consistency throughout the WEM Rules and will clarify that the ERA should only be concerned with offers which exceed a generator's reasonable expectation of its SRMC of generating the relevant electricity. That is, the ERA is not concerned with offers at or below SRMC, and a contravention will only occur if, for the relevant trading interval, the ERA considers the generator had market power.

Recommendation

7. **Rules 2.16.9, 2.16.9B, 2.16.9G and 6.6.3 of the Wholesale Electricity Market Rules should be amended to remove references to the phrases "that do not reflect" and "may not reflect", the Market Generator's reasonable expectation of the short run marginal cost of generating the relevant electricity, to be replaced with the phrases "that exceed", "may exceed" and "in excess of" the Market Generator's reasonable expectation of the short run marginal cost of generating the relevant electricity, where appropriate.**

[20] The Brattle Report, page 5.

Section 4.2 sets out EPWA's proposed changes to the WEM Rules.

4. Proposed amendments to the WEM Rules

EPWA proposes amendments to the WEM Rules to clarify market offer requirements as outlined in this section of the paper (noting that <u>underlined text</u> represents new wording and ~~strikethrough text~~ represents the proposed deletion of text).

Following stakeholder consultation and subject to the Minister for Energy's endorsement of the proposed recommendations in this paper, EPWA intends to submit a finalised set of rule amendments to be made by the Minister under Regulation 7(5) of the Electricity Industry (Wholesale Electricity Market) Regulations 2004.

4.1 Definition of SRMC

It is proposed that the following definition of SRMC is inserted in Chapter 11 (Glossary) of the WEM Rules (as the term is used in Rules 2.16.9, 2.16.9B, 2.16.9G, 6.6.3, 6.6.10, 6.20.7, 7A.2.17, 7B.2.15):

> "<u>**Short Run Marginal Cost:** All costs that a Market Participant without market power would include in forming its profit-maximising offer.</u>"

4.2 Amendments relating to SRMC and market power

4.2.1 Amendment to Rule 2.16.9(b)

Rule 2.16.9(b) currently requires the ERA to monitor and investigate any market behaviour if it considers that the behaviour has resulted in the market not functioning effectively. More specifically, the ERA must monitor Ancillary Service Contracts, inappropriate and anomalous market behaviour (including offering prices which exceed a generator's reasonable expectation of its SRMC of generating the relevant electricity), market design problems or inefficiencies and problems with the structure of the market.

EPWA recommends that Rule 2.16.9(b) is amended to replace the reference to "behaviour related to market power" with the words "the exploitation of market power", as discussed at Section 3 above.

At present the drafting of this clause is not as clear as it could be and therefore EPWA recommends that for consistency, sub-clause (b)(i) should also be amended to use the words "that exceed" rather than "do not reflect".

With these changes Rule 2.16.9(b) would be amended as follows:

> "2.16.9. The Economic Regulation Authority is responsible for monitoring the effectiveness of the market in meeting the Wholesale Market Objectives and must investigate any market behaviour if it considers that the behaviour has resulted in the market not functioning effectively. The Economic Regulation Authority, with the assistance of the AEMO, must monitor:
>
> (a) Ancillary Service Contracts that System Management enters into and the criteria and process that System Management uses to procure Ancillary Services from other persons;

(b) inappropriate and anomalous market behaviour, including ~~behaviour related to~~ the exploitation of market power and the exploitation of shortcomings in the Market Rules or Market Procedures by Rule Participants including, but not limited to:

i. prices offered by a Market Generator in its Portfolio Supply Curve that exceed ~~do not reflect~~ the Market Generator's reasonable expectation of the S~~s~~hort R~~r~~un M~~m~~arginal C~~c~~ost of generating the relevant electricity;

ii. prices offered by a Market Generator in its Balancing Submission that exceed the Market Generator's reasonable expectation of the S~~s~~hort R~~r~~un M~~m~~arginal C~~c~~ost of generating the relevant electricity;

iii. prices offered by a Market Generator in its LFAS Submission that exceed the Market Generator's reasonable expectation of the ~~incremental change in~~ S~~s~~hort R~~r~~un M~~m~~arginal C~~c~~ost incurred by the LFAS Facility in providing the relevant LFAS;

iv. Availability Declarations that may not reflect the reasonable expectation of a Facility's availability, beyond outages of which System Management has been notified;

v. Ancillary Service Declarations that may not reflect the reasonable expectation of the Ancillary Services to be provided by a Facility; and

vi. Fuel Declarations that may not reflect the reasonable expectation of the fuel that a Facility will be run on in real-time;

(c) market design problems or inefficiencies; and

(d) problems with the structure of the market."

4.2.2 Amendment to Rule 2.16.9B

Rule 2.16.9B currently requires that where the ERA is of the view that market power is present in a trading interval and prices offered by a generator may exceed the generator's reasonable expectation of the SRMC of generating the relevant electricity, the ERA must request an explanation from the generator and investigate the behaviour.

At present the drafting of this clause is not as clear as it could be and therefore EPWA recommends that for consistency, sub-clause (a) should be amended to use the phrase "may exceed" rather than "may not reflect".

Further, as discussed above, it is recommended that the reference to behaviour that "relates to market power" is replaced with the express requirement that the ERA consider if a generator had market power and may have exploited that market power to raise prices above competitive levels.

Rule 2.16.9B relates directly to the prohibitions contained in Rules 6.6.3 (offers within Portfolio Supply Curve), 7A.2.17 (Balancing Submission) and 7B.2.15 (LFAS Submission) set out below.

With these changes Rule 2.16.9B would be amended as follows:

"2.16.9B. Where the Economic Regulation Authority concludes that—

(a) prices offered by a Market Generator in its Portfolio Supply Curve may exceed~~not reflect~~ the Market Generator's reasonable expectation of the S~~s~~hort R~~r~~un M~~m~~arginal C~~c~~ost of generating the relevant electricity;

(aA) prices offered by a Market Generator in its Balancing Submission may exceed the Market Generator's reasonable expectation of the S~~s~~hort R~~r~~un M~~m~~arginal C~~c~~ost of generating the relevant electricity; or

(b) prices offered by a Market Generator in its LFAS Submission may exceed the Market Generator's reasonable expectation of the ~~incremental change in~~ S~~s~~hort R~~r~~un M~~m~~arginal C~~c~~ost incurred by the LFAS Facility in providing the relevant LFAS,

and the Economic Regulation Authority considers that the Market Generator had market power and may have exploited its market power to raise prices above competitive levels~~behaviour relates to market power~~, the Economic Regulation Authority must as soon as practicable, request an explanation from the Market Participant which has made the relevant STEM Submission, Balancing Submission or LFAS Submission and investigate the identified behaviour."

4.2.3 Amendment to Rule 2.16.9G

Following an investigation by the ERA pursuant to Rule 2.16.9B, Rule 2.16.9G allows the ERA to bring proceedings before the Electricity Review Board, where the ERA has determined that prices offered by a generator exceed its reasonable expectation of the SRMC of generating these supplies.

In line with the proposed amendments to Rule 2.16.9B, it is recommended that the reference to behaviour that "relates to market power" is replaced with the express requirement that the ERA determine that a generator had market power and that the generator exploited that market power to raise prices above competitive levels.

With these changes Rule 2.16.9G would be amended as follows:

2.16.9G. ~~[Blank]~~Where the Economic Regulation Authority determines pursuant to the investigation under clause 2.16.9B that:

(a) prices offered in the Portfolio Supply Curve, the subject of the investigation, exceeded~~did not reflect~~ the Market Generator's reasonable expectation of the S~~s~~hort R~~r~~un M~~m~~arginal C~~c~~ost of generating the relevant electricity;

(b) prices offered in a Balancing Submission, the subject of the investigation, exceeded the Market Generator's reasonable expectation of the S~~s~~hort R~~r~~un M~~m~~arginal C~~c~~ost of generating the relevant electricity; or

(c) prices offered in the LFAS Submission, the subject of the investigation, exceeded the Market Generator's reasonable expectation of the ~~incremental change in~~ S~~s~~hort R~~r~~un M~~m~~arginal C~~c~~ost incurred by the LFAS Facility in providing the relevant LFAS,

~~and that the behaviour related to market power~~ and the Market Generator had market power and exploited that market power to raise prices above competitive levels, the Economic Regulation Authority may bring proceedings before the Electricity Review Board.

4.2.4 Amendment to Rule 6.6.3

Rule 6.6.3 prohibits a generator from offering prices within its Portfolio Supply Curve in excess of its reasonable expectation of the SRMC of generating the relevant electricity, when such behaviour relates to market power.

EPWA recommends amending this clause to clarify that for any trading interval in which a generator has market power, offers must not be "in excess of" the generator's reasonable expectation of the SRMC of generating the relevant electricity.

With this change Rule 6.6.3 should be amended as follows:

> "6.6.3. A Market Generator must not, for any Trading Interval in which the Market Generator has market power, offer prices within its Portfolio Supply Curve in excess of~~that do not reflect~~ the Market Generator's reasonable expectation of the S~~s~~hort R~~r~~un M~~m~~arginal C~~c~~ost of generating the relevant electricity ~~when such behaviour relates to market power~~."

4.2.5 Amendment to Rule 6.6.10

Rule 6.6.9 allows a Market Generator to apply to AEMO for all or part of the capacity of one of its Scheduled Generators that is not Liquid Fuel capable to be treated as if it was dual-fuel capable where one fuel is Liquid Fuel for the purposes of the STEM, the Balancing Market and settlement purposes. In this situation, the Market Generator must apply to AEMO in accordance with Rule 6.6.10 and AEMO must approve the application only where the criteria in Rule 6.6.10 are met.

Although this Rule does not relate to market power mitigation in the WEM, EPWA recommends this consequential amendment to use the new defined term of SRMC at sub-clause (c).

With this change Rule 6.6.10 should be amended as follows:

> "6.6.10. AEMO must assess an application made under clause 6.6.9 and inform the Market Participant whether or not the application is approved. AEMO must approve the application only where the Market Participant provides evidence satisfactory to AEMO that:
>
> (a) the Market Participant has an arrangement with a user of fuel ("Fuel User") to release a quantity of fuel for use in a Scheduled Generator which is not Liquid Fuel capable and is registered by the Market Participant;
>
> (b) the use of fuel released under the arrangement would result in the Fuel User using Liquid Fuel in a Facility or other equipment; and
>
> (c) as a consequence of clause 6.6.10(a) and (b), the S~~s~~hort R~~r~~un M~~m~~arginal C~~c~~ost of generating electricity using the Scheduled Generator using fuel released under the arrangement would be above the Maximum STEM Price."

4.2.6 Amendment to Rule 6.20.7

Rule 6.20.6 requires AEMO to annually review the appropriateness of the value of the Maximum STEM Price and the Alternative Maximum STEM Price.

Rule 6.20.7 allows AEMO to annually propose revised values for these price limits and requires that the Maximum STEM Price and Alternative Maximum STEM Price be based on AEMO's estimate of the SRMC of the highest cost generating works in the SWIS fuelled by natural gas and distillate respectively.

Although this Rule does not relate to market power mitigation in the WEM, EPWA recommends this consequential amendment to use the new defined term of SRMC.

With this change Rule 6.20.7(a) should be amended as follows:

> "6.20.7. In conducting the review required by clause 6.20.6 AEMO:
>
> (a) may propose revised values for the following:
>
> i. the Maximum STEM Price, where this is to be based on AEMO's estimate of the S~~s~~hort R~~r~~un M~~m~~arginal C~~c~~ost of the highest cost generating works in the SWIS fuelled by natural gas and is to be calculated using the formula in paragraph (b); and
>
> ii. the Alternative Maximum STEM Price, where this is to be based on AEMO's estimate of the S~~s~~hort R~~r~~un M~~m~~arginal C~~c~~ost of the highest cost generating works in the SWIS fuelled by distillate and is to be calculated using the formula in paragraph (b);"

4.2.7 Amendment to Rule 7A.2.17

Rule 7A.2.17 prohibits a generator from offering prices within its Balancing Submission in excess of its reasonable expectation of the SRMC of generating the relevant electricity, when such behaviour relates to market power.

EPWA recommends amending this clause to clarify that for any trading interval in which a generator has market power, offers must not be "in excess of" the generator's reasonable expectation of the SRMC of generating the relevant electricity.

With this change Rule 7A.2.17 should be amended as follows:

> "7A.2.17. Subject to clauses 7A.2.3, 7A.2.9(c) and 7A.3.5, a Market Participant must not, for any Trading Interval in which the Market Participant has market power, offer prices in its Balancing Submission in excess of the Market Participant's reasonable expectation of the S~~s~~hort R~~r~~un M~~m~~arginal C~~c~~ost of generating the relevant electricity by the Balancing Facility~~, when such behaviour relates to market power~~."

4.2.8 Amendment to Rule 7B.2.15

Rule 7B.2.15 prohibits a generator from offering prices within its LFAS Submission in excess of its reasonable expectation of the SRMC of generating the relevant electricity, when such behaviour relates to market power.

EPWA recommends amending this clause to clarify that for any trading interval in which a generator has market power, offers must not be "in excess of" the generator's reasonable expectation of the SRMC of generating the relevant electricity.

EPWA also recommends removing the words "incremental change in" as discussed at section 2.2.3 above.

With these changes Rule 7B.2.15 should be amended as follows:

> "7B.2.15. A Market Participant must not, for any Trading Interval in which the Market Participant has market power, offer prices within its LFAS Submission in excess of the Market Participant's reasonable expectation of the ~~incremental change in~~ S~~s~~hort R~~r~~un M~~m~~arginal C~~c~~ost incurred by the LFAS Facility ~~providing~~to provide LFAS ~~when such behaviour relates to market power~~."

5. Other Matters

5.1 Consultation

In finalising the proposed amendments to the WEM Rules contained in this Directions Report, EPWA sought and received comments from the ERA as to the workability of the proposed arrangements. EPWA also briefed members of the Rule Change Panel's Market Advisory Committee as to the intent of the proposed amendments. The proposed changes are informed by this preliminary consultation with the ERA and the Market Advisory Committee.

EPWA also notes that a package of more significant WEM Rule amendments on related matters will likely be proposed by the Energy Transformation Taskforce as part of the market power mitigation work program to assist implementation of the Energy Transformation Strategy.

5.2 Next steps and timing

5.2.1 Next steps

Subject to stakeholder feedback on the proposed WEM Rule amendments contained in this Directions Report, following endorsement by the Minister for Energy a finalised set of rule amendments is to be made by the Minister under Regulation 7(5) of the Electricity Industry (Wholesale Electricity Market) Regulations 2004.

5.2.2 Timing

Subject to Ministerial approval, EPWA intends that the finalised WEM Rule amendments will commence by late 2020.