Final Rule Change Report: Implementation of 30-Minute Balancing Gate Closure (RC_2017_02)

Standard Rule Change Process

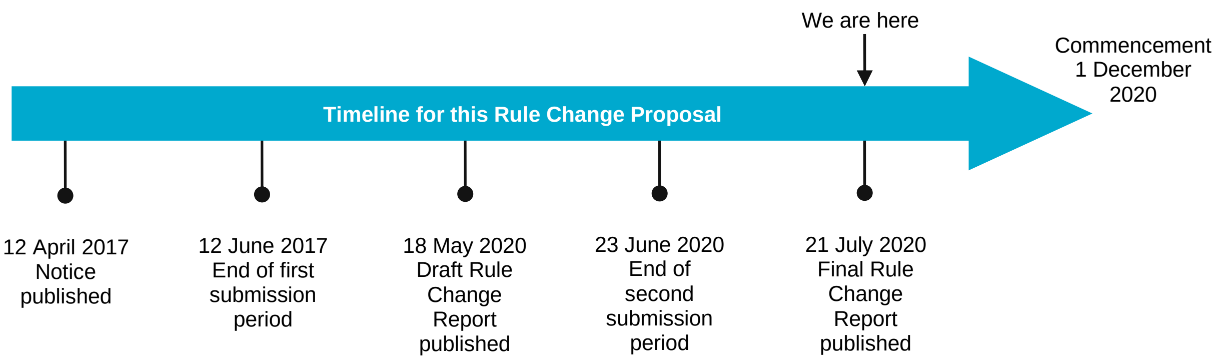
21 July 2020

Contents

1. Rule Change Process and Timeline

On 4 April 2017, Perth Energy submitted a Rule Change Proposal titled “Implementation of 30-Minute Balancing Gate Closure” (RC_2017_02) to the Rule Change Panel. The Rule Change Proposal aimed to reduce the length of the Balancing Gate Closure (**BGC**) period from two hours to no more than 30 minutes.

The Rule Change Proposal was progressed using the Standard Rule Change Process, described in section 2.7 of the Market Rules. The Rule Change Panel extended the timeframes for the first and second submission periods, and for the preparation of the Draft Rule Change Report, under clause 2.5.10[1]. Details of these extensions are available on the Rule Change Panel’s website. The key dates for progressing this Rule Change Proposal, as amended in the extension notices, are:



This Final Rule Change Report is drafted on the basis that the reader has read all the related documents, including the Rule Change Proposal, first and second period submissions and the Draft Rule Change Report. All documents related to the Rule Change Proposal can be found on the Rule Change Panel’s website at https://www.erawa.com.au/rule-change-panel/market-rule-changes/rule-change-rc_2017_02.

2. The Rule Change Panel’s Decision

The Rule Change Panel’s final decision is to accept the Rule Change Proposal in a modified form, as outlined in section 8 of this report, and summarised as follows:

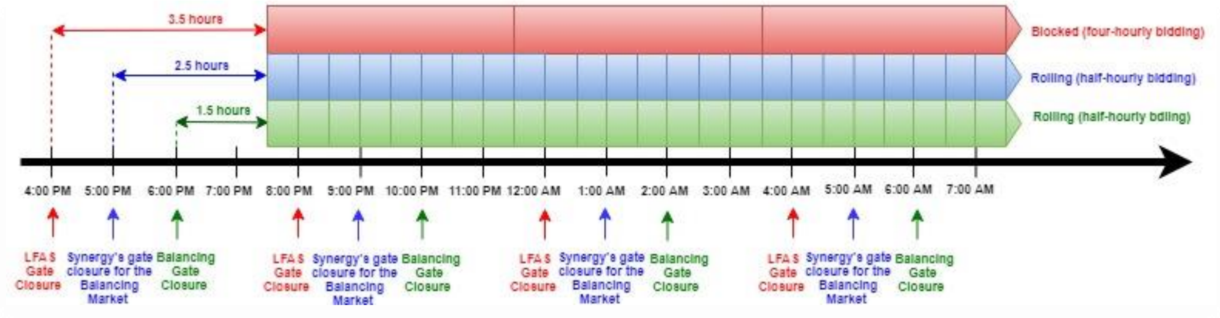
- move from a 120-minute rolling BGC to a 90-minute rolling BGC;
- move from a 240-minute gate closure for Synergy for the Balancing Market, with a 6-hour bidding block, to a 150-minute rolling gate closure for Synergy for the Balancing Market;
- move from a 300-minute LFAS Gate Closure, with a 6-hour bidding block, to a 210-minute LFAS Gate Closure, with a 4-hour bidding block, for Independent Power Producers (**IPP**s); and
- move from a 600-minute LFAS Gate Closure, with a 6-hour bidding block, to a 210-minute LFAS Gate Closure, with a 4-hour bidding block, for Synergy.

1 The Rule Change Panel extended the time frame for:

- the first submission period due to several material and complex issues raised in submissions that required further investigation and analysis while managing competing priorities; and
- the second submission period to allow time for Market Participants to take AEMO’s cost and practicality estimates into account when making their second period submissions.

Figure 1 illustrates the Rule Change Panel's final decision.

Figure 1: Illustration of the Rule Change Panel's Decision



The LFAS Horizon is a 4-hour period commencing at 4:00 PM, 8:00 PM, 12:00 AM, 4:00 AM or 8:00 AM. The LFAS Gate Closure is the point in time which is two hours before the BGC and one hour ahead of Synergy's gate closure for the Balancing Market.[2]

2.1 Reasons for the Decision

The Rule Change Panel has made its decision on the basis that the Amending Rules, as modified in this report:

- will allow Market Participants, including Synergy, to delay making trading decisions in both the Balancing and LFAS markets until closer to real time, when more accurate forecasts of the Load for Scheduled Generation are available for each Trading Interval;
- will reduce risk and allow Market Participants to respond to changing market conditions, promoting economic efficiency and minimising the long-term cost of electricity supplied to consumers;
- will allow Synergy to provide more accurate price signals to the market;
- will reduce the asymmetry in access to accurate information for making trading decisions between IPPs and Synergy in the Balancing Market, thereby increasing competition;
- will maintain a 1-hour gap between the gate closure for Synergy and IPPs to protect IPPs from infeasible dispatch, but will minimise the gap to maximise the benefits of a shorter gate closure for Synergy;
- will align the requirements in the Market Rules with current practice in the LFAS Market, ensuring clarity for Market Participants and reducing the risk of non-compliance;
- are consistent with changes in market design to accommodate an increasing penetration of renewable technologies observed in Western Australia and in other jurisdictions;
- will better achieve Wholesale Market Objectives (a), (b), (c) and (d); and will be consistent with Wholesale Market Objective (e);
- can be implemented at minimal cost and with minimal changes to AEMO's systems, as part of AEMO's business as usual enhancements, and are not expected to significantly increase constraint compensation;

2 See Figure 2 of the Draft Rule Change Report (top of page 73) for an illustration of the existing gate closure arrangements.

- were generally supported in feedback from Market Advisory Committee (**MAC**) members and attendees at the MAC workshops on 6 September 2019 and 18 October 2019; and
- were generally supported in submissions regarding the Draft Rule Change Report.

The Rule Change Panel rejects changing the BGC to 30 minutes because it is infeasible under the current market design, given the timeframe of AEMO's processes and the 15-minute start up period for open cycle gas turbines. The Rule Change Panel considers that a 30-minute or shorter BGC is best addressed as part of the Government's Energy Transformation Strategy (**ETS**) reforms, which are scheduled for progressive implementation from 1 October 2022.

The Rule Change Panel rejects changing the BGC to 60 minutes because, if such a change was implemented:

- AEMO has indicated that it would implement an automated linear ramping process that would be costly and take a long time to develop, and would increase constraint payments; and
- Synergy would increasingly be required to offset the aggregate ramp rate of IPPs within the Trading Interval but may not be fully remunerated for this service and would likely be less physically able to provide this service in the future.

The Rule Change Panel rejects the proposed additional options for enhancing the information used in trading decisions[3] because the costs to implement these options as advised by AEMO would likely be greater than the benefits advised by MAC members.

The analysis supporting the Rule Change Panel's decision is provided in section 7 of this report.

2.2 Commencement

The Amending Rules will commence at **8:00 AM** on **Tuesday, 1 December 2020**.

3. Proposed Amendments

3.1 The Rule Change Proposal

The Rule Change Proposal seeks to change the BGC from the current 2-hour window to no more than 30 minutes before the relevant Trading Interval. Perth Energy considers that the increased percentage of Non-Scheduled Generation and small scale solar in the WA energy sector has led to more dynamic market conditions, such that load forecasts can vary dramatically between the finalisation of Balancing Submissions and commencement of the Trading Interval.

Perth Energy contends that such variation results in inaccurate price signals, which can lead to a less responsive and less competitive market, and consequently the current 2-hour BGC is no longer sufficient to maintain an efficient and equitable market.

[3] The additional options for enhancing the information used in trading decisions were:

- increasing the frequency of the BMO calculation to every 10-minutes for the whole Balancing Horizon;
- calculation of the Forecast BMO every 10 minutes but only for the Trading Interval for which gate closure is about to occur; and
- publication of a 5-minute balancing load forecasts in a new report.

Perth Energy considers that moving the BGC to 30 minutes before a Trading Interval will provide Market Participants greater opportunity to respond to forecast changes and to bid as accurately as possible. Perth Energy notes that shortening the time between gate closure and trading will not improve the forecast itself, but it will reduce the margin for error, which it considers is a practical and inexpensive first step to improve the economic efficiency of the market.

Perth Energy argues that, after more than four years of market operation with a BGC of two hours, Market Participants and System Management have demonstrated the capability to operate with a small bidding window in a near real-time market, and it is therefore reasonable to consider shortening the gate closure period.

3.2 The Rule Change Panel's Initial Assessment of the Proposal

The Rule Change Panel decided to progress the Rule Change Proposal on the basis that its preliminary assessment indicated that the proposal is consistent with the Wholesale Market Objectives.

4. Consultation

Although the Rule Change Panel has summarised the submissions in the first and second submission periods and the views expressed by the MAC in accordance with clause 2.7.7 of the Market Rules, the Rule Change Panel has reviewed the submissions in their entirety and considered each matter raised by the Rule Participants in making its decision on this Rule Change Proposal.

4.1 Consultation before the Publication of the Draft Rule Change Report

Consultation undertaken by the Rule Change Panel before the publication of the Draft Rule Change Report included:

- discussion at the MAC meetings held on 1 May 2017 and 14 June 2017;
- submissions received during the first submission period, held between 12 April 2017 and 12 June 2017;
- discussion at the MAC meetings held on 12 July 2017, 13 June 2018, and 12 September 2018, following the close of the first submission period;
- two MAC workshops held on 6 September 2019 and 18 October 2019;
- discussion at the MAC meeting on 11 February 2020, following the MAC workshops; and
- out of session consultation with AEMO.

The Rule Change Panel has summarised and responded to this information in section 5, Appendix A and Appendix B of the Draft Rule Change Report, which is available on the Rule Change Panel's website.

4.2 Submissions Received during the First Submission Period

The first submission period was held between 12 April 2017 and 12 June 2017. The Rule Change Panel received submissions from AEMO, Alinta Energy (**Alinta**), Bluewaters, Community Electricity, Perth Energy and Synergy. Perth Energy also made an out of session submission on 28 May 2018. A summary of these submissions and the Rule Change Panel's response to these submissions is provided in section 5.2 and Appendix A of the Draft Rule Change Report.

4.3 Submissions Received during the Second Submission Period

The Rule Change Panel published its Draft Rule Change Report on 18 May 2020. The second submission period for this Rule Change Proposal was held between 18 May 2020 and 23 June 2020. However, whilst AEMO had previously indicated that a change to a 90-minute BGC was achievable with low implementation cost and risk, at the time of publication of the Draft Rule Change Report, AEMO was yet to confirm this or to provide cost and time estimates for the changes to Synergy's gate closure for the Balancing Market or to the LFAS Gate Closures.

AEMO provided this information to the Rule Change Panel on 12 June 2020. Accordingly, the Rule Change Panel issued an addendum to the Draft Rule Change Report to provide Market Participants with AEMO's cost and practicality estimates. Additionally, the Rule Change Panel extended the timeframe of the second submission period by one week to 23 June 2020, to allow Market Participants to take this information into account in making their second period submissions.

The Rule Change Panel received second period submissions from AEMO, Alinta, and Synergy. AEMO and Alinta supported the Amending Rules, as set out in the Draft Rule Change Report. Synergy also supported the reduction in gate closure timeframes but considered that there is no reasonable justification for the 60-minute time differential between Synergy's and IPPs' BGCs, as proposed in the Draft Rule Change Report. As in its first period submission, Synergy advocated for the same BGC timeframe as IPPs.

AEMO, Alinta and Synergy did not raise any new issues in relation to the Rule Change Proposal in their second period submissions.

The assessment by submitting parties in the second submission period of whether the current Rule Change Proposal would better achieve the Wholesale Market Objectives is summarised in Table 1.

Table 1: Submitters' Assessment of the Proposal Against the Wholesale Market Objectives (Second Submission Period)

Submitter	Wholesale Market Objective Assessment
AEMO	AEMO considers that the Rule Change Panel's draft decision for a 90-minute BGC, together with the complimentary changes to Synergy's gate closure and LFAS gate closure, is achievable with low implementation cost and risk, and would better facilitate the achievement of Wholesale Market Objectives (a), (b), (c) and (d).
Synergy	Although the proposed changes to BGC are a vast improvement to existing practices, Synergy considers that the enhancements to economic efficiencies will be more evident if Synergy is also moved to a 90-minute rolling BGC, thereby supporting Wholesale Market Objective (a).

Copies of all submissions received during the second submission period are available on the Rule Change Panel's website.

4.4 The Rule Change Panel's Response to Submissions Received during the Second Submission Period

The Rule Change Panel's response to each of the issues raised in the second submission period is presented in Appendix A of this report.

5. The Rule Change Panel's Draft Assessment

The Rule Change Panel's draft assessment against clauses 2.4.2 and 2.4.3 of the Market Rules and analysis of the Rule Change Proposal are provided in section 6 of the Draft Rule Change Report, available on the Rule Change Panel's website.

6. The Rule Change Panel's Proposed Decision as set out in the Draft Rule Change Report

The Rule Change Panel's proposed decision in the Draft Rule Change Report was to accept the Rule Change Proposal in a modified form, as set out in section 7 of the Draft Rule Change Report. The reasons for the Rule Change Panel's proposed decision are set out in section 2.1 of the Draft Rule Change Report.

7. The Rule Change Panel's Final Assessment

7.1 Assessment Criteria

In preparing its Final Rule Change Report, the Rule Change Panel must assess the Rule Change Proposal in light of clauses 2.4.2 and 2.4.3 of the Market Rules.

Clause 2.4.2 of the Market Rules states that the Rule Change Panel "*must not make Amending Rules unless it is satisfied that the Market Rules, as proposed to be amended or replaced, are consistent with the Wholesale Market Objectives*".

Clause 2.4.3 of the Market Rules states that, when deciding whether to make Amending Rules, the Rule Change Panel must have regard to:

- any applicable statement of policy principles the Minister has issued to the Rule Change Panel under clause 2.5.2 of the Market Rules;
- the practicality and cost of implementing the proposal;
- the views expressed in submissions and by the MAC; and
- any technical studies that the Rule Change Panel considers necessary to assist in assessing the Rule Change Proposal.

In making its final decision, the Rule Change Panel has had regard to each of the matters described in clauses 2.4.2 and 2.4.3 of the Market Rules as follows:

- the Rule Change Panel's assessment of the Rule Change Proposal against the Wholesale Market Objectives is available in section 7.4 of this report;
- the Rule Change Panel notes that there has not been any applicable statement of policy principles from the Minister in respect of the Rule Change Proposal;
- the Rule Change Panel's assessment of the practicality and cost of implementing the Rule Change Proposal is available in section 7.6 of this report;

- a summary of the views expressed in submissions and by the MAC is available in section 4 and Appendix A of this report, and in section 5, Appendix A and Appendix B of the Draft Rule Change Report. The Rule Change Panel's response to these views is available in section 7.2 and Appendix A of this report, and section 6 and Appendix A of the Draft Rule Change Report; and
- the Rule Change Panel does not believe a technical study in respect of the Rule Change Proposal is required and therefore has not commissioned one.

The Rule Change Panel's assessment is presented in the following sections.

7.2 Assessment of the Proposed Changes

The Rule Change Panel's final assessment of the proposed amendments is the same as its assessment in section 6 of the Draft Rule Change Report.

Section 6.1 of the Draft Rule Change Report discusses changes to the BGC. The Rule Change Panel's final decision is to move to a 90-minute BGC, because:

- A 30-minute BGC is infeasible, given the existing market systems and processes, and the timeframe for starting some gas units, which can be up to 15 minutes (see section 6.1.2 of the Draft Rule Change Report). A 30-minute or shorter BGC is best addressed as part of the ETS reforms, which are scheduled for progressive implementation from 1 October 2022.
- A 60-minute BGC is not desirable, given that:
  - AEMO has indicated that, from the date of implementation of a 60-minute BGC, it would implement a complex automated linear ramping process to address imbalances between the aggregate ramp rate of IPPs and the ramp rate of demand that cannot be offset by the Balancing Portfolio (see section 5.7.2 of the Draft Rule Change Report). Implementation of this process is expected to:
    - be costly and time consuming; and
    - lead to a considerable increase in constraint payments (see section 6.6.3 of the Draft Rule Change Report).
  - Synergy will be increasingly required to offset the aggregate ramp rate of IPPs within the Trading Interval, which could involve moving the Balancing Portfolio at ramp rates greater than the Ramp Rate Limit in Synergy's Balancing Submission, despite Synergy:
    - receiving less remuneration for supplying Ancillary Services now that other Market Participants provide LFAS; and
    - being dispatched at lower generation levels due to the changing SWIS load profile from an increasing penetration of solar photovoltaic systems and will therefore likely be physically less able to provide a service to offset the aggregate ramp rate of IPPs in the future.
- A 90-minute BGC is achievable given that AEMO has indicated that it will not require any material costs or changes to AEMO's current systems or Market Participant's systems and is not expected to significantly increase constraint compensation. Additionally, the Rule Change Panel has found that it will lead to a statistically significant increase in Load for Scheduled Generation (**LSG**) forecast accuracy of 1.34 MW from the current BGC (see section 6.1.3.2 and Appendix C of the Draft Rule Change Report).

Section 6.2 of the Draft Rule Change Report discusses several other changes, including changes to Synergy's gate closure for the Balancing Market and to the LFAS Gate Closures. The Rule Change Panel's final decision is to:

- Set Synergy's gate closure for the Balancing Market to 150 minutes. The Rule Change Panel considers that the reduced BGC will:
  - be sufficient to reduce Synergy's ability to exercise dominance because IPPs can revise their submissions after Synergy's gate closure for the Balancing Market;
  - provide sufficient time following Synergy's gate closure for the Balancing Market for IPPs to do what is needed to bid efficiently and avoid infeasible dispatch; and
  - lead to a statistically significant increase in accuracy closer to real time in LSG forecasts of 7.3 MW for delivery in the first Trading Interval in the Balancing Horizon (see section 6.2.1.1 and Appendix C of the Draft Rule Change Report).
- Implement a rolling gate closure for Synergy for the Balancing Market, instead of the current restriction on Synergy to bid in blocks. This will lead to significant increases in accuracy in LSG Forecasts for each of the subsequent Trading Intervals to the first Trading Interval in the 6-hour bidding block.
- Set the LFAS Gate Closure to 210 minutes for both IPPs and Synergy. The Rule Change Panel considers that this will:
  - provide sufficient time between LFAS Gate Closure, Synergy's gate closure for the Balancing Market (at 150 minutes) and the BGC (at 90 minutes) to allow participants to incorporate LFAS clearing volumes into their Balancing Submissions;
  - align the IPP and Synergy LFAS Gate Closures, which will also align the requirements in the Market Rules with current practice in the LFAS Market, ensuring clarity for Market Participants and reducing the risk of non-compliance; and
  - lead to a statistically significant increase in accuracy closer to real time in LSG forecasts of 4.7 MW for delivery in the first Trading Interval in the LFAS Horizon (see section 6.2.2.1 and Appendix C of the Draft Rule Change Report).
- Implement a reduced LFAS block bidding requirement from six to four hours. The reduced LFAS horizon will give providers of LFAS access to more accurate forecasts than would occur in the final two hours of the LFAS bidding block, obviating the need to employ an additional trader to monitor outcomes in the LFAS Market.

7.3 Additional Amendments to the Proposed Amending Rules

The only amendments to the proposed Amending Rules following second period submissions are to specify in clauses 7A.1.16 and 7A.1.17 the 1 December 2020 date to transition to the new BGC arrangements. The Rule Change Panel's final Amending Rules are otherwise the same as the proposed Amending Rules set out in the Draft Rule Change Report (see sections 6.3 and 7, respectively). The Amending Rules are detailed in section 8 of this report.

7.4 Wholesale Market Objectives

The Rule Change Panel considers that the proposed amendments to the BGC, Synergy's gate closure for the Balancing Market and the LFAS Gate Closures, will:

- allow Market Participants, including Synergy, to delay making trading decisions in both the Balancing and LFAS markets until closer to real time, when more accurate forecasts of LSG for each Trading Interval are available; and
- allow Synergy to provide more accurate pricing signals to the market.

The Rule Change Panel considers that this will reduce risk and allow Market Participants to respond to changing market conditions, promoting economic efficiency and minimising the long-term cost of electricity supplied to consumers (Wholesale Market Objectives (a) and (d)).

Furthermore, the Rule Change Panel considers that the proposed amendments to:

- Synergy's gate closure for the Balancing Market will reduce the asymmetry in access to accurate information for making trading decisions between IPPs and Synergy in the Balancing Market, increasing competition (Wholesale Market Objective (b)); and
- the LFAS Gate Closures will also align the requirements in the Market Rules with practice in the LFAS Market, ensuring clarity for Market Participants and reducing the risk of non-compliance (Wholesale Market Objective (d)).

The Rule Change Panel notes that the proposed amendments to the BGC, as modified in this Final Rule Change Report, are consistent with changes in market design to accommodate the increasing penetration of renewable technologies observed in both Western Australia and in other jurisdictions around the world (Wholesale Market Objective (c)).[4]

The Rule Change Panel therefore considers that the proposed amendments to the Market Rules, as modified in this Final Rule Change Report, will better achieve Wholesale Market Objectives (a), (b), (c) and (d); and are consistent with Wholesale Market Objective (e).

7.5 Protected Provisions, Reviewable Decisions and Civil Penalties

The proposed Amending Rules do not amend any Protected Provisions or Reviewable Decisions. However, it is proposed to amend clause 7A.2.9(d) and to remove clause 7A.2.9(e). Clause 7A.2.9 is a civil penalty provision.

Clause 7A.2.9 specifies the requirements for Synergy's Balancing Submissions. The amendment to sub-clause 7A.2.9(d) clarifies that Synergy's gate closure for the Balancing Market is one hour ahead of BGC and removal of clause 7A.2.9(e) removes the requirement for block bidding by Synergy.

The Rule Change Panel considers that the amendments to clause 7A.2.9:

- should not affect the classification of this clause as a civil penalty provision; and
- do not alter the intent of the clause and so no amendment to the current civil penalty is required.

4 See section 6.1.7.1 of the Draft Rule Change Report for discussion of changes in market design to accommodate an increasing penetration of renewables in the WEM and in other jurisdictions.

The Rule Change Panel advised Energy Policy WA of the proposed changes to the civil penalty provision.

The Rule Change Panel does not consider that the status of any of the Amending Rules should be changed to reviewable decisions or civil penalty provisions.

7.6 Practicality and Cost of Implementation

7.6.1 Cost

As noted in section 4.2, at the time of publication of the Draft Rule Change Report, AEMO had not confirmed that a change to a 90-minute BGC was achievable with low implementation cost and risk, and had not provided cost and time estimates for the changes to Synergy's gate closure for the Balancing Market or to the LFAS Gate Closures.

AEMO provided this information to the Rule Change Panel on 12 June 2020, stating that the changes to implement the Amending Rules in the Draft Rule Change Report will have negligible cost implications and can be implemented as part of AEMO's business as usual enhancements.

In its second period submission, Alinta agreed with the Rule Change Panel's draft decision to reduce the BGC to 90 minutes, noting that this was the optimal decision, as there are minimal costs and implementation times for Market Participants.

Additionally, in its assessment of whether the Rule Change Proposal would better achieve the Wholesale Market Objectives (see section 4.2.5), AEMO considered that the Rule Change Panel's draft decision for a 90-minute BGC and the complimentary changes to Synergy's gate closure and the LFAS gate closures were achievable with low implementation cost and risk.

Synergy did not provide cost estimates in its second period submission but confirmed with RCP Support that its implementation costs would be small.

Accordingly, the Rule Change Panel has not changed its view from the Draft Rule Change Report. While the Rule Change Panel has not conducted a formal cost-benefit analysis, based on the advice from AEMO of negligible cost implications, the Rule Change Panel is of the view that the proposed amendments are justified by the likely efficiency benefits resulting from the ability of Market Participants to make trading decisions based on more accurate forecasting information.

7.6.2 Practicality

On 12 June 2020, AEMO requested a commencement date of not earlier than 1 December 2020 for changes to implement the Amending Rules in the Draft Rule Change Report, to be implemented as part of AEMO's business as usual enhancements.

In its second period submission, Alinta agreed with shortening the BGC to 90 minutes, estimating that it would take less than four weeks to implement the proposed changes. Alinta considered that reducing the BGC to 60 minutes or shorter would require relatively long implementation times and noted that the period to recoup the implementation costs would be less than 24 months (i.e. until the ETS reforms commence).

Synergy highlighted significant operational and system impacts associated with the implementation of the Rule Change Proposal, as Synergy's trading systems and underlying logic will need to be reprogrammed to reflect the new gate closures. However, Synergy considered that, in light of the increasing difficulties in appropriately responding to changes in daytime troughs and evening peaks, it is desirable to implement the Amending Rules, alongside Synergy's suggested changes, prior to the shoulder season (September through November) when issues with the management of load and dispatch will be aggravated.

Nevertheless, Synergy noted that the transition from a 4-hour BGC with a 6-hour bidding block to a 150-minute rolling gate closure is a significant departure from current practices. Synergy anticipated that it would require two months from the date of approval to implement the approved changes and further requested that the rule change be reflected in AEMO's Market Trial system at least one month prior to implementation to allow Synergy sufficient time to complete end to end testing.

The Rule Change Panel notes that a 1 December 2020 commencement date gives Synergy several months more time to prepare than Synergy had requested. It will be up to AEMO to ensure that it reflects the Amending Rules in AEMO's Market Trial system prior to implementation.

As noted in its Draft Rule Change Report, the Rule Change Panel is aware of the short duration until the new market arrangements under the ETS reforms, which are scheduled for progressive implementation from 1 October 2022, and that AEMO's resources are stretched, given the workload involved with these reforms. The Rule Change Panel therefore considers that this should be accounted for in assessment of this proposal and in setting the commencement date for the Amending Rules.

The Rule Change Panel therefore considers that the Amending Rules should commence on 1 December 2020, which is as soon as practicable, given the constraints on AEMO's resources.

8. Amending Rules

The Rule Change Panel has decided to implement the following Amending Rules (~~deleted text~~, added text, clauses that are included for context but not amended): …

7A.1.16. With effect on and from the Trading Interval commencing at 8:00 AM on the Balancing Market Commencement Day until the end of the Trading Interval commencing at 7:30 AM on 1 December 2020, AEMO must determine a point in time immediately before the commencement of a Trading Interval for the purpose of setting the Balancing Gate Closure. The point in time must be no shorter than two hours and no longer than six hours before the commencement of a Trading Interval and must be published on the Market Web Site.

~~7A.1.17. AEMO may, from time to time, change the point in time determined under clause 7A.1.16 by publishing the new point in time on the Market Web Site and specifying the date from which the new point in time is to take effect, which shall be no earlier than 2 months from the date of publication.~~

7A.1.17. With effect on and from the Trading Interval commencing at 8:00 AM on 1 December 2020 and all Trading intervals thereafter, the Balancing Gate Closure is 90 minutes immediately before the commencement of the Trading Interval.

7A.2. Balancing Submissions

7A.2.1. A Market Participant must at all times ensure that it has made a Balancing Submission in accordance with clause 7A.2.4 for each Trading Interval in the Balancing Horizon for each of its Balancing Facilities.

7A.2.2. A Market Participant may submit a subsequent Balancing Submission in accordance with clause 7A.2.4 in respect of any of its Balancing Facilities, excluding Facilities in the Balancing Portfolio, and:

(a) the Balancing Submission may be for one or more Trading Intervals in the Balancing Horizon; and

(b) the Balancing Submission must be made before Balancing Gate Closure for any Trading Interval in the submission.

7A.2.3. A Market Participant with a Balancing Facility that is:

(a) the subject of an Operating Instruction; or

(b) undergoing a Test that has an approved Test Plan,

must ensure that a Balancing Submission submitted under this section 7A.2 is consistent with the proposed operation of the Balancing Facility for each Trading Interval specified in the Operating Instruction or the Test Plan. The provisions of this clause 7A.2.3 do not apply to the Balancing Portfolio.

7A.2.4. A Balancing Submission must:

(a) be in the manner and form prescribed and published by AEMO;

(b) constitute a declaration by an Authorised Officer;

(c) have Balancing Price-Quantity Pair prices within the Price Caps;

(d) specify, for each Trading Interval covered in the Balancing Submission, whether the Balancing Facility is to use Liquid Fuel or Non-Liquid Fuel;

(e) specify the Ramp Rate Limit or the Portfolio Ramp Rate Limit (as applicable) for each Trading Interval covered in the Balancing Submission; and

(f) specify the available capacity and the unavailable capacity as determined under clause 7A.2.4A, 7A.2.4B or 7A.2.4C (as applicable) for each Trading Interval covered in the Balancing Submission.

…

7A.2.6. A subsequent Balancing Submission made under clauses 7A.2.2, 7A.2.9(d), ~~7A.2.9(e),~~ 7A.2.9(f), 7A.2.9B, 7A.2.9C, 7A.2.10 or 7A.3.5 in respect of the same Balancing Facility covering the same Trading Interval as an earlier Balancing Submission, overrides the earlier Balancing Submission for, and has effect in relation to, that Trading Interval.

…

7A.2.9. Synergy, in relation to the Balancing Portfolio:

(a) must, subject to clauses 7A.2.9(d) to 7A.2.9(f), ensure that for each Trading Interval in the Balancing Horizon the most recently submitted Balancing Submission in respect of that Trading Interval accurately reflects:

i. all information reasonably available to Synergy, including Balancing Forecasts published by AEMO and the latest information available to Synergy in relation to any Forced Outage for a Facility in the Balancing Portfolio;

ii. subject to clause 7A.2.9A(b), Synergy's reasonable expectation of the capability of its Balancing Portfolio to be dispatched in the Balancing Market for that Trading Interval; and

iii. the price at which Synergy intends to have the Balancing Portfolio participate in the Balancing Market;

(b) must indicate in a manner and form prescribed by AEMO:

i. which of the Balancing Price-Quantity Pairs that it has priced at the Minimum STEM Price are for Facilities that are to provide LFAS;

ii. which Facilities are likely to provide LFAS; and

iii. for each completed Trading Interval, which Facilities actually provided the LFAS in the Trading Interval;

(c) must:

i. ensure that quantities in the Balancing Price-Quantity Pairs in its Balancing Submissions that are required for the provision of Ancillary Services, other than LFAS, are priced at the Price Caps;

ii. advise AEMO in a manner and form prescribed by AEMO, the Facilities which are likely to provide the quantities specified in clause 7A.2.9(c)(i); and

iii. for each completed Trading Interval, advise AEMO which Facilities actually provided the Ancillary Services referred to in clause 7A.2.9(c)(i) in the Trading Interval;

(d) may submit a new, updated Balancing Submission in relation to any Trading Interval in the Balancing Horizon for which Balancing Gate Closure is more than ~~two~~ one hour~~s~~ in the future;~~:~~

~~i. by submitting its updated Balancing Submission to AEMO immediately before 1:00 PM; or~~

~~ii. otherwise by submitting its updated Balancing Submission to AEMO within one hour after LFAS Gate Closure;~~

(e) ~~may submit a new, updated Balancing Submission in relation to any Trading Interval in the Balancing Horizon for which Balancing Gate Closure is more than two hours in the future if a Facility in the Balancing Portfolio has experienced a Forced Outage since the last Balancing Submission;~~[Blank]

(f) may after the time specified in clause 7A.2.9(d), submit a new, updated Balancing Submission to reflect the impact of a Forced Outage which Synergy expects will cause a Facility to run on Liquid Fuel, where the Facility would not have run on Liquid Fuel but for the Forced Outage, in order to meet Synergy's Balancing Market obligations in relation to the Balancing Portfolio under this Chapter 7A; and

(g) must, as soon as it becomes aware that:

i. either:

1. a Facility in the Balancing Portfolio has experienced a Forced Outage; or

2. System Management has approved a request for Opportunistic Maintenance for a Facility in the Balancing Portfolio; and

ii. the outage will reduce the available capacity of the Balancing Portfolio in a Trading Interval in the Balancing Horizon from the quantity reported as available in the current Balancing Submission for that Trading Interval; and

iii. there is a credible risk that representation of the relevant capacity as available in the Balancing Submission might, in the circumstances:

1. affect any expected EOI Quantity provided to another Market Participant for the Trading Interval under clause 7A.3.1(c); or

2. cause System Management to dispatch Balancing Facilities Out of Merit under clauses 7.6.1C(b) or 7.6.1C(c),

submit a new, updated Balancing Submission for the Trading Interval to:

iv. make any relevant Scheduled Generator capacity subject to the outage unavailable; and

v. unless otherwise permitted under clauses 7A.2.9(d) to 7A.2.9(f), remove or reduce the quantity of the highest price Balancing Price-Quantity Pair or Balancing Price-Quantity Pairs (excluding any Balancing Price-Quantity Pairs that are required to be offered at the Price Caps under clause 7A.2.9(c)) to remove the capacity subject to the outage from its Balancing Price-Quantity Pairs.

…

7A.2.12. Where Synergy has submitted an updated Balancing Submission for the Balancing Portfolio in accordance with clause~~s 7A.2.9(e) or~~ 7A.2.9(f) because of a Forced Outage of one of the Facilities in the Balancing Portfolio after the time specified in ~~the applicable~~ clause 7A.2.9(d) it must, as soon as reasonably practicable, provide AEMO with written details of:

(a) the nature of the Forced Outage;

(b) when the Forced Outage occurred;

(c) the duration of the Forced Outage; and

(d) information substantiating the commercial impact, if any, of the Forced Outage.

…

7A.2A.1. Subject to clauses 7A.2A.3 and 7A.2A.4, a Market Participant (other than Synergy in respect of the Balancing Portfolio) must, as soon as practicable after each Trading Interval, for each of its Balancing Facilities that is an Outage Facility, ensure that it has notified System Management of a Forced Outage or Consequential Outage that relates to any capacity for which the Market Participant holds Capacity Credits that:

(a) was declared unavailable in the Facility's Balancing Submission for that Trading Interval; and

(b) was not subject to an approved Planned Outage, Consequential Outage or Commissioning Test Plan in that Trading Interval,

unless the relevant capacity was declared unavailable in the Facility's Balancing Submission because the Market Participant reasonably expected that its Reserve Capacity Obligations for the Trading Interval would be reduced because the maximum site temperature for the applicable Trading Day would exceed 41 degrees Celsius.

7A.2A.2. Subject to clauses 7A.2A.3 and 7A.2A.4, Synergy must, as soon as practicable after each Trading Interval, for each Facility in the Balancing Portfolio that is an Outage Facility, ensure that it has notified System Management of a Forced Outage or Consequential Outage that relates to any capacity for which Synergy holds Capacity Credits that:

(a) was declared unavailable in the Balancing Portfolio's Balancing Submission for that Trading Interval; and

(b) was not subject to an approved Planned Outage, Consequential Outage or Commissioning Test Plan in that Trading Interval,

unless the relevant capacity was declared unavailable in the Balancing Portfolio's Balancing Submission because Synergy reasonably expected that its Reserve Capacity Obligations for the Trading Interval would be reduced because the maximum site temperature for the applicable Trading Day would exceed 41 degrees Celsius.

…

7A.2A.4. Clauses 7A.2A.1 and 7A.2A.2 do not apply in respect of a Trading Interval if:

(a) the relevant capacity was previously subject to an approved Consequential Outage or Commissioning Test Plan for the Trading Interval; and

(b) System Management notified the Market Participant that the capacity was no longer subject to the Consequential Outage or Commissioning Test Plan for the Trading Interval:

i. less than 30 minutes before:

1. Balancing Gate Closure for the Trading Interval, for a Facility that is not in the Balancing Portfolio; or

2. the ~~latest~~ time specified in clause 7A.2.9(d) for the Trading Interval, for a Facility in the Balancing Portfolio; or

ii. at a time when the Facility was not synchronised and could not be synchronised by the start of the Trading Interval given the Facility's relevant Equipment Limits.

…

7A.3.5. A Market Participant~~, other than Synergy in respect of the Balancing Portfolio,~~ must, within 60 minutes after LFAS Gate Closure for an LFAS Horizon, for each Trading Interval in that LFAS Horizon, use its best endeavours to make a new Balancing Submission for each of its LFAS Facilities in the LFAS Enablement Schedules for that Trading Interval, which must fulfil the following conditions:

(a) the total quantity in Balancing Price-Quantity Pairs priced at the Alternative Maximum STEM Price is at least the Upwards LFAS Enablement for the Facility; and

(b) the total quantity in Balancing Price-Quantity Pairs priced at the Minimum STEM Price is at least the quantity of capacity for the Facility specified in Appendix 1(b)(xiii) plus the Downwards LFAS Enablement for the Facility.

…

7B.2. LFAS Submissions

7B.2.1. A Market Participant may submit an LFAS Submission in respect of any of its LFAS Facilities, other than the Balancing Portfolio:

(a) in accordance with clause 7B.2.7;

(b) for any or all Trading Intervals in the Balancing Horizon; and

(c) before LFAS Gate Closure for those Trading Intervals.

7B.2.2. A Market Participant may submit an updated LFAS Submission in respect of any of its LFAS Facilities other than the Balancing Portfolio:

(a) in accordance with clause 7B.2.7;

(b) for one or more Trading Intervals in the Balancing Horizon; and

(c) before LFAS Gate Closure for those Trading Intervals.

7B.2.3. Synergy must, immediately before 1:00 PM, submit an LFAS Submission, for all Trading Intervals in the Balancing Horizon for which it has not already made an LFAS Submission, by submitting it to AEMO in accordance with clauses 7B.2.5, 7B.2.6 and 7B.2.7.

7B.2.4. Subject to clause 7B.2.5, Synergy may submit an updated LFAS Submission in respect of the Balancing Portfolio:

(a) in accordance with clauses 7B.2.6 and 7B.2.7; and

(aA) for one or more Trading Intervals in the Balancing Horizon for which LFAS Gate Closure has not occurred.~~; and~~

~~(b) at the time it makes an updated Balancing Submission under clause 7A.2.9(d).~~

…

11. Glossary

...

Balancing Gate Closure: For a Trading Interval means the point in time immediately before the commencement of the Trading Interval determined ~~by AEMO under clause 7A.1.16 or 7A.1.17, as applicable~~ in accordance with clauses 7A.1.16 or 7A.1.17 as applicable.

…

LFAS Gate Closure: Means, for the ~~12~~ eight Trading Intervals in an LFAS Horizon, the point in time which is ~~3~~ two hours immediately before the Balancing Gate Closure for the first of those Trading Intervals.

LFAS Horizon: Means a ~~6~~ four-hour period commencing at 8:00 AM, 12:00 PM, 4:00 PM~~2:00 PM~~, 8:00 PM, 12:00 AM or 4:00 AM ~~2:00 AM~~, as applicable.

…

Appendix A. Responses to Submissions Received in the Second Submission Period

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
Should Synergy have the same Gate Closure as IPPs?			
1	Synergy	Although Synergy is also supportive of the reduction in BGC timeframes, there appears to be no reasonable justification for the 60-minute time differential between Synergy's and IPP's BGC as proposed in the Draft Report. Synergy advocates that the same BGC timeframe as IPPs should be applied to Synergy and has examined the alleged issues of market power, infeasible dispatch and impacts to pricing to support this view.	The Rule Change Panel notes that Synergy bids into the Balancing Market as a portfolio, whilst IPPs bid on a Facility basis. The Rule Change Panel considers that this arrangement provides advantages to Synergy through a lack of transparency to other Market Participants and that these advantages provide reasonable justification for the time differential between Synergy's and IPPs' gate closures. The Rule Change Panel notes that the ETS reforms are targeting Facility bidding by Synergy and a 15-minute gate closure at 1 October 2022 reducing to zero after six months. In the meantime, Synergy has the option to remove its Facilities from the Balancing Portfolio and to bid on a Facility basis, and the Rule Change Panel's decision will significantly reduce the existing difference between the gate closure for Synergy and IPPs. The Rule Change Panel's reasons for the use of a 60-minute time differential are set out in section 6.2.1.3 of the Draft Rule Change Report. Synergy's comments on the issues of market power, infeasible dispatch and impacts on pricing are addressed in issues 2-6 of this appendix.

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
2	Synergy	Under section 6.2.1.4 of the Draft Report, it is noted that the existing BGC arrangements are in place for varying reasons, including for the purpose of addressing Synergy's market power by allowing IPPs to respond to Synergy's bid. Specifically, Synergy's possession of market power is implied in the statement that the "one-hour lag in bidding between Synergy and IPPs is sufficient to reduce Synergy's ability to exercise dominance because IPPs can revise their submissions after Synergy's gate closure for the Balancing Market." Synergy denies that it has market power as suggested in the Draft Report and contends that it is neither shown that Synergy has market power, nor that the proposed differential in BGC is an effective, proportional or appropriate mitigation of any such market power. Moreover, the RCP had previously agreed with Synergy in the Draft Report "that the requirement for all Market Participants to offer at SRMC where the behaviour relates to Market Power", under clause 7A.2.17 of the Market Rules, "currently appears to be a sufficient arrangement to mitigate against market power abuses and result in economically efficient prices and outcomes".	The Rule Change Panel notes the findings presented in the Economic Regulation Authority's (**ERA**) issues paper for the annual review of the effectiveness of the Wholesale Electricity Market (**WEM**) for 2018/19,[5] which shows that competition indicators for generation have remained largely unchanged and have not materially shifted in the last decade. In 2018/19, Synergy remained: • the largest generator by capacity and electricity generated; and • the dominant generator, with generation combined with bilateral purchases at around 70%.[6] The Rule Change Panel also notes the ERA's findings from its investigation of Synergy's pricing behaviour, in which it concludes that Synergy has market power.[7]The Rule Change Panel has not considered, and takes no view on, whether Synergy has abused its market power. The Rule Change Panel clarifies that it agreed that the requirement for all Market Participants to offer at SRMC where the behaviour relates to market power "appears to be a sufficient arrangement to mitigate against market power abuses and result in economically efficient prices and outcomes" (refer to the Draft Rule Change Report, page 71) within a discussion that assumed a one-hour lag

5 See https://www.erawa.com.au/electricity/wholesale-electricity-market/annual-wholesale-electricity-market-effectiveness-reports

6 Consistent with this, the market concentration indicator (i.e. the Hirfindahl Hirshman Index) for generation has plateaued and the WEM remains highly concentrated before and after accounting for bilateral contracts.

7 See https://www.erawa.com.au/electricity/wholesale-electricity-market/market-behaviour-investigations/2017-investigation-into-synergys-pricing-behaviour

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
			in bidding between Synergy and IPPs, to reduce Synergy's ability to exercise dominance. Finally, the Rule Change Panel understands that Energy Policy WA intends to consider the controls for efficient market outcomes in the WEM (i.e. market power mitigation arrangements) as part of the ETS. The Rule Change Panel considers that it's decision will minimise the impact of the difference in gate closure timing between Synergy and IPPs, but that it would be more appropriate for the Minister to consider fully removing the difference as part of the ETS reforms.
3	Synergy	Given existing Market Rule obligations under clause 7A.2.17 and section 46 of the Competition and Consumer Act 2000, which prohibits the misuse of market power, Synergy considers that the economic inefficiencies that will continue in the Balancing Market as a result of the RCP's proposal to continue to have differential BGCs would far outweigh any alleged market power mitigation gained.	See the response to issue 1 of this appendix.
4	Synergy	Synergy considers the RCP should: • conduct a cost-benefit analysis of keeping the time differentials to support the supposed need for the time differential; • provide evidence of the incremental benefits associated with its decision to continue to include differential BGCs between Synergy and IPPs compared to the market power mitigation that occurs under the aforementioned mechanisms; and	The Rule Change Panel notes the short duration until commencement of the new market arrangements under the ETS reforms, which are scheduled for progressive implementation from 1 October 2022. The Rule Change Panel reiterates that, unlike IPPs, Synergy currently bids on a portfolio basis and that the ETS reforms are targeting Facility bidding by Synergy and a 15-minute gate closure at 1 October 2022 reducing to zero after six months. In the meantime, Synergy has the option to remove its Facilities from the Balancing Portfolio and to bid on a Facility basis,

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
		• compare that incremental benefit to significant costs associated with the inefficiencies that its decision will enable to continue to permeate the Balancing Market.	and the Rule Change Panel's decision will significantly reduce the difference between the gate closure for Synergy and IPPs. The Rule Change Panel considers that the analyses suggested by Synergy are unnecessary, time consuming and costly given: • the impending ETS reforms; • Synergy's effective operation under the current market design to date, despite a much larger time differential between its gate closure and the gate closure of IPPs and the requirement for block bidding; and • the significant efficiencies that this decision will provide to Synergy (refer to section 6.2.1.1 of the Draft Rule Change Report).
5	Synergy	Synergy disagrees with the conclusions drawn under section 6.2.1.2 of the Draft Report, which explores whether Synergy should have the same Gate Closure as IPPs. Despite the potential market efficiency created in enabling all Market Participants to make operational decisions with the most accurate available information, the RCP reasoned "that the risk to IPP's of being caught in infeasible dispatch and having to pay refunds is greater if they do not have forewarning of what the Balancing Portfolio will do" and that it is therefore "important that IPPs are able to update their Balancing Submissions having seen the final position of the Synergy Portfolio, which should be allowed for when setting the gate closure timeframes". Synergy notes that the removal of its re-bidding restriction will mean that Market Generators are	As outlined in response to issue 1 of this appendix, the Rule Change Panel notes that Synergy bids into the Balancing Market as a portfolio, whilst IPPs bid on a Facility basis. The Rule Change Panel considers that this arrangement provides advantages to Synergy through a lack of transparency to other Market Participants and that these advantages provide reasonable justification for the time differential between Synergy's and IPP's gate closures. The ETS reforms are targeting Facility bidding by Synergy and a 15-minute gate closure at 1 October 2022 reducing to zero after six months. In the meantime, the Rule Change Panel considers that:

Issue	Submitter	Comment/Issue Raised	Rule Change Panel’s Response
		required to price on the basis of the increased risk that they will be displaced by Synergy plant if they bid too high. However, using the Balancing Portfolio to de-risk market bids for IPPs is inequitable for Synergy and, rather than an overall reduction of risk to the Market, merely results in the transference of risk from IPPs to Synergy who remains at greater risk of infeasible dispatch due to the 150-minute window for forecasting error. If all Market Participants are subject to the same BGC restrictions, no Market Participants will have prior knowledge of the bidding behaviour of other Market Participants and the risk will be equally spread. Synergy stresses that the risk of infeasible dispatch is borne by all Market Participants, including Synergy. It is neither an obligation under the Market Rules nor Synergy’s role for the Balancing Portfolio to indemnify an IPP from infeasible dispatch.	• Synergy has the option to remove its Facilities from the Balancing Portfolio and to bid on a Facility basis; and • the Rule Change Panel’s decision will significantly reduce the existing difference between the gate closure for Synergy and IPPs. The Rule Change Panel further notes that the purpose of the current Rule Change Proposal is to increase the accuracy of information available to Market Participants in making trading decisions, not to change the basic design elements of the market or the assumptions on which it operates. The Rule Change Panel considers that if Synergy has concerns regarding market design, and in particular market power mitigation mechanisms, then it should provide input to the ETS reform program or submit a Rule Change Proposal to address these concerns.
6	Synergy	The primary driver of the prices offered in Synergy’s Balancing Submissions is Synergy’s forecast of the expected run time of its facilities and, because Synergy is not able to take into account subsequent IPP balancing submissions, this forecast is invariably incorrect. This issue is compounded by IPPs being able to re-bid multiple times after Synergy’s gate closure to maximise volume while simultaneously shadow pricing Synergy’s marginal offers so as to maximise their revenue under the balancing market while minimising their cost to operate, for instance, by generating low volumes for the same or similar revenue.	The Rule Change Panel notes that it rejected the proposed additional options for enhancing the information used in trading decisions, including the proposal to increase the frequency in which the BMO is published, because the costs to implement these options as advised by AEMO would likely be greater than the benefits advised by MAC members. Refer to response to issue 1 of this appendix.

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
		The RCP's proposal to increase the frequency in which the BMO is published will provide IPPs with additional information to enable them to shadow price Synergy, further compounding the above issue. Removing the 60-minute differential for BGC will therefore promote competition in the Balancing Market by increasing price competition around the Market Clearing Price.	
Should Synergy's Balancing Portfolio be required to address the aggregate ramp issue?			
7	Synergy	Synergy notes that economic efficiency is one of the market objectives and that an objective of the Balancing Market (clause 7A.1.3(c) of the Market Rules) is to "establish a Balancing Price which is consistent with dispatch". Synergy cannot continue to bear costs associated with being dispatched, effectively out of merit within the Balancing Portfolio, to accommodate IPP ramping, particularly price.	As noted in response to issue 5 of this appendix, the purpose of the current Rule Change Proposal is to increase the accuracy of information available to Market Participants in making trading decisions, not to change the basic design elements of the market or the assumptions on which it operates. The Rule Change Panel considers that if Synergy has concerns regarding market design, and in particular the requirements surrounding its provision of Ancillary Services, then it should provide input to the ETS reform program or submit a Rule Change Proposal to address these concerns.
Is Constraining IPP Facility Ramp Rates an Option for Addressing the Aggregate Ramp Issue?			
8	AEMO	AEMO has considered the implementation options from a holistic perspective. AEMO's view is that selectively constraining non-Balancing Portfolio Facilities is not an option to address the aggregate ramping issue to implement a reduced BGC time of 60-minutes. AEMO's reasoning is that	The Rule Change Panel considers that it is unclear why AEMO would consider that it is acceptable to selectively constrain non-Balancing Portfolio Facilities to address the aggregate ramping issue if the BGC is set at 90 minutes (and 120 minutes, which it currently does) but not if the

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
		such an option does not appear consistent with the intent of the Wholesale Electricity Market (WEM) Rules. The intent of the WEM Rules would appear to be that options should first be pursued that do not trigger the need to issue Dispatch Instructions Out of Merit. In AEMO's view, this is supported by the dispatch rules specified in clauses 7.6.1C and 7.6.1D. In accordance with these clauses, AEMO should maintain in-merit dispatch as a priority over reverting to Out of Merit Dispatch. A solution that requires selectively constraining specific Facilities promotes Out of Merit Dispatch and therefore is inconsistent with the intent of the WEM Rules. In these circumstances, AEMO's view is that selectively constraining non-Balancing Portfolio Facilities is not an appropriate solution to address the aggregate ramping issue.	BGC is set at a reduced BGC of 60 minutes. The ability to selectively constrain non-Balancing Portfolio Facilities to avoid a High Risk Operating State is not specified differently for differing gate closures in the Market Rules. Refer to section 6.1.4.1 of the Draft Rule Change Report for further discussion of whether IPP Facility Ramp Rates can be constrained to address the aggregate ramp issue.
The Use of LFAS to Offset the Aggregate Ramp Issue			
9	AEMO	AEMO is of the view that LFAS is not a solution to address the aggregate ramping issue. There are two components to AEMO's reasoning as follows: LFAS requirement: Clause 3.11.1 of the WEM Rules requires AEMO to determine the LFAS requirements in accordance with the SWIS Operating Standards and the LFAS standard. These standards do not expressly require the consideration of instructed generation movements and therefore are not adequate to cover the aggregate ramping issue. For example, the LFAS standard specified in clause 3.10.1 only expressly considers uninstructed movements of generation.	The Rule Change Panel notes that it obtained independent legal advice in relation to AEMO's interpretation of its responsibilities in administering the LFAS service under the Market Rules. As set out in section 6.1.4.2 of the Draft Rule Change Report, the Market Rules allow AEMO to use LFAS to address the aggregate ramp issue, which accords with AEMO's current practice, within the current market design.

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
		In practice, AEMO derives its LFAS requirement through its analysis of differences in forecast error (being the driver of the LFAS requirement) at different times of the day, where these differences are between forecast and final non-scheduled generation output as well as the difference between demand forecasts and actual demand. The LFAS requirement is set excluding fluctuations from the instructed dispatch of Scheduled Generators, consistent with the LFAS standard, and therefore cannot be set with the intent to cover the aggregate ramping issue.	
10	AEMO	AEMO has consistently expressed that under the 60-minute BGC scenario it will not have the ability to manually schedule Synergy plant ahead of the relevant trading interval to manage the aggregate ramping of non-Synergy plant. This could lead to power system security risks because the LFAS requirement may not be sufficient, given it was not set with regard to instructed plant movements. While AEMO can procure more LFAS where there is a shortfall, it must have regard to the requirements specified in the LFAS standard. This is because clause 3.11.3 of the WEM Rules only considers shortfalls with reference to the applicable Ancillary Service Standard. As noted earlier, the applicable LFAS standard does not cater for instructed generation movements and so AEMO's view is that additional LFAS cannot be procured to cover aggregate ramping issues.	Refer to response to issue 9 of this appendix. The Rule Change Panel considers that the independent legal advice that it obtained in relation to AEMO's responsibilities under the Market Rules is clear and in keeping with AEMO's current practice, within the current market design.
11	AEMO	AEMO therefore maintains the view that selectively constraining non-Balancing Portfolio Facilities and additional LFAS are not appropriate options.	Refer to responses to issues 8 and 9 of this appendix.