Wholesale Electricity Market Rule Change Proposal Submission

RC_2017_02
Implementation of 30-Minute Balancing Gate Closure

Submitted by

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Post to: Rule Change Panel
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1. Please provide your views on the proposal, including any objections or suggested revisions.

Synergy welcomes the opportunity to provide comment on the *Rule Change Proposal (RC_2017_02): Implementation of 30-Minute Balancing Gate Closure,* submitted by Perth Energy on 4 April 2017.

Summary

Synergy considers that RC_2017_02 should not be progressed in its current form because it has, at least, the following negative effects when assessed against the Wholesale Market Objectives:

- RC_2017_02 will increase the information asymmetry between Synergy and IPPs and therefore decrease economic efficiency.
- RC_2017_02 will increase the costs of LFAS and/or increase the risks to system security and reliability.
- RC_2017_02 is unlikely to have any material impact on lowering the costs in the WEM - a position supported by the IMO when it assessed the same proposition (and, by operation of section 1.18 of the Market Rules, the Rule Change Panel is now deemed to have assessed it as such).[1]

Synergy considers that, the only way that the WEM can move to a Balancing Gate Closure of 30 minutes or less without increasing economic inefficiencies in the market and/or increasing risks to system security and reliability is:

1. allow for all Balancing Facilities to have the same gate closure for making Balancing Submission; and
2. require AEMO to "sculpt" LFAS requirements while redrafting the Market Rules to expressly prohibit it from using the Balancing Portfolio to, effectively, provide "free" LFAS.

If the Rule Change Panel decides to progress RC_2017_02 without modifying it[2] to ensure:

1. Balancing Gate Closure for Synergy and IPPs is based on the same gate closure timings applying to all Market Participants ; and
2. LFAS Gate Closure is sculpted,

then Synergy considers it has little choice but to submit a competing Rule Change Proposal that will remedy the economic inefficiencies that will result from such a decision. To the extent the Rule Change Panel intends to proceed in this manner, Synergy requests formal notification as soon as possible so that it can submit its competing Rule Change Proposal for the Rule Change Panel's consideration concurrent with RC_2017_02.

Synergy also considers that the decision by the Rule Change Panel to progress RC_2017_02 in its current form has created unnecessary, and unacceptable,

[1] The IMO's independent expert stated: "... reducing Balancing Gate Closure to a ½ hour and allowing Verve Energy to update the [portfolio] Balancing Submission an hour (instead of two) before Balancing Gate Closure for the first interval in the LFAS Horizon is unlikely to have any material impact.(emphasis added)" - see page 24 here: https://www.erawa.com.au/cproot/15295/2/MAC%20Meeting%20No.%2067%20Papers.pdf

[2] In accordance with clause 2.7.7A(a)(ii) of the Market Rules.

regulatory costs for all Market Participants. RC_2017_02 itself contains unsubstantiated claims of "benefit". Ample external evidence is available to the Rule Change Panel that demonstrates RC_2017_02 would not be of material benefit to the market. This being the case, Synergy considers that there was sufficient information available to the Rule Change Panel for it to require Perth Energy to formulate and re-submit a credible, coherent Rule Change Proposal. Synergy contends that the Rule Change Panel should require a higher standard of Rule Change Proposals where they deal with matters that have previously been the subject of extensive, and expensive, public consultation and debate.

Need for an even playing field

The Rule Change Panel must use this opportunity create an even playing field between Synergy and IPPs in terms of Balancing Gate Closure. The current differential gate closures are bereft of any analytical, or logical, basis as a market power mitigation measure. Conversely, Synergy considers the current differential gate closures create inefficient economic signals, allow shadow pricing by other generators and therefore discourage competition among generators, and therefore drive up the long-term costs of electricity. There is no analysis of which Synergy is aware that has examined the extent, if any, that such mitigation measures outweigh the inconsistency of the measures against the Wholesale Market Objectives. Specifically, as outlined above, the limitations on when Synergy can make Balancing Submissions for the Balancing Portfolio appear to be inconsistent with the Wholesale Market Objectives of economic efficiency, encouragement of competition among generators and minimisation of the long term cost of electricity supplied to customers from the SWIS. Therefore, Synergy considers the Rule Change Panel should remove these discriminatory, and economically inefficient, Market Rules.

Synergy notes that the discriminatory gate closures may have originally been introduced as a *quid pro quo* to offset Synergy's "benefits" associated with its ability to return Facilities from Outage materially earlier than other Market Participants.[3] However, if the Rule Change Panel decides to move to a 30 minute Balancing Gate Closure for IPP Facilities, then IPPs and Synergy (with respect to the Balancing Portfolio) will be able to return Facilities from Forced Outage at, effectively, the same time. Therefore, Synergy considers that, to the extent this basis for discrimination ever existed, it no longer exists in any material sense.

[3] Synergy maintains its long held position that any benefit it receives from bidding as a portfolio are materially outweighed by the costs it incurs from bidding and being dispatched as a portfolio. For example, the free LFAS is provides (see below for further details).

Therefore, Synergy sees no need, and no possible justification that conforms with the Wholesale Market Objectives, to maintain the differential gate closures for Synergy and IPPs.

Areas where RC_2017_02 conflict with the Wholesale Market Objectives

Synergy has three main concerns with the Rule Change Panel progressing RC_2017_02 in its current form:

1. it will result in the economically inefficient information asymmetry between Synergy and IPPs being dramatically increased;
2. it further discourages competition among generators and
3. it will likely result in increases to the LFAS requirements and costs for the WEM, which in term increases the long term costs of electricity to customers.

Information Asymmetry

It is a generally accepted economic principle that efficient markets require symmetrical information amongst market participants.

Synergy maintains its long held position that the current Market Rules that require Synergy to offer its Balancing Portfolio into the Balancing Market at, effectively, a gate closure materially longer than the gate closure for IPPs, creates economically inefficient price signals. The effect of these inefficient signals results in decreases in dynamic economic efficiency, and, ultimately, higher prices for consumers. Synergy considers that the Market Rules that require all Market Participants to offer at SRMC where the behaviour relates to Market Power are sufficient to mitigate against market power abuses.

Further, this SRMC bidding requirement results in a market power mitigation regime that produces economically efficient prices and outcomes (unlike the discriminatory gate closures). If Synergy were able to offer prices on an even playing field with other Market Participants, it considers the market would be able to realise the significant benefits associated with long-term price signals that reflect the cost of electricity production. These benefits would occur without the negative consequences that are associated with information asymmetry embedded in the current Market Rules, and exacerbated in RC_2017_02.

If RC_2017_02 is progressed by the Rule Change Panel, the reduction in Balancing Gate Closure will reduce the current time lag for Balancing Submission for Facilities not in the Synergy Portfolio (i.e. IPPs) by 75%, but only reduce the time lag for the Synergy Balancing Portfolio by a maximum of 37.5%, and a minimum of 15% (due to Synergy's requirement to bid in 6 hour blocks tied to the LFAS gate closure – see Market Rules 7A.2.9(d)).

The effect of this disproportionate change is Synergy and IPP information becomes more asymmetric – therefore there is a greater risk of economically inefficient wealth transfers from Synergy to IPPs, with no consequential benefit to consumers.

Further, there appears to have been no evidence provided as part of RC_2017_02 that the economic inefficiencies associated with this obvious wealth transfer would be outweighed by gains in economic efficiencies from greater flexibility for IPPs to respond to load forecasts. The only evidence of the "benefits" provided appears to be based on fundamentally flawed analysis.

Specifically, it appears that a fundamental assumption made in the analysis underpinning the benefits reported in RC_2017_02 is a claim that that all changes in the Balancing Price between the forecast price and the final price would be able to be avoided if a shorter Balancing Gate Closure was implemented. Synergy considers that for such material benefits to be realised, there would need to be:

- an, almost, unlimited amount of spare capacity available 30 minutes before Balancing Gate Closure;
- this spare capacity would need to be capable of providing electricity at the forecast price;
- the spare capacity would need to be able to be made available at, generally much, less than 30 minutes notice; and
- the spare capacity would also need to have been sitting idle at the time of the forecast.

This is obviously an extremely unlikely scenario.

Synergy considers that its proposition, that the benefits claimed to be available due to increased submission flexibility are significantly less than is claimed in RC_2017_02, is supported by the analysis presented by AEMO at the MAC meeting regarding this proposal. This presentation seems to support the concept that the majority of changes of the Balancing Price (and quantity) are due to forecast error that are not known until real time. Therefore, irrespective of the changes to Balancing Gate Closure, a shorter gate closer could not avoid the resultant changes to the Balancing Price. In fact, to the extent that the changes occur in real time, the energy could only be provided by facilities already online and not at maximum capacity, or Facilities that have very short start up times (i.e. Facilities with "spare", and available, capacity). To the extent these Facilities exist, application of generally market theory should mean that those Facilities have already have made a balancing submission at a price they would be prepared to generate. Therefore, the only benefit that RC_2017_02 could provide is limited to the extent that those Facilities have not already bid at a price that the relevant Market Participant would be prepared to operate.

The fact that Synergy generally has the most in-merit Facilities already online that could provide energy at the balancing price compounds the over estimation of benefits in RC_2017_02.

Synergy notes that the Electricity Market Review (**EMR**), in its " Final Report: Design Recommendations for Wholesale Energy and Ancillary Service Market Reforms" (**EMR Final Report**), claimed there would be a $300,000 per year benefit resulting from changing to a near instantaneous gate closure due to reductions in the time IPP Facilities could return from Forced Outages.[4] Synergy considers this claim is incredibly optimistic. In Synergy's extensive experience, a Facility operator will generally know well in advance of 2 hours when its Facility will be able to return from a Forced Outage. Therefore, the current Balancing Gate Closure is sufficiently close to real time to realise most of the benefits claimed by the EMR.

Therefore, Synergy contends that any benefit capable of being realised due to the increased flexibility offered by RC_2017_02 would be orders of magnitude lower than the $50m+/year benefit claimed by Perth Energy, if it exists at all.

However, while Synergy contends that there is very limited benefit able to be realised by RC_2017_02 in terms of increases to economic efficiency based on increased flexibility for IPPs, it considers there is a vastly increased ability for IPPs to "shadow price" Synergy. As outlined above, it is incredibly unlikely that changes to Balancing Gate Closure will increase the ability for IPPs to change their bids and materially affect the outcomes of the Balancing Market in an economically efficient manner.

On the other hand, if RC_2017_02 is progressed, the Market Participants controlling Facilities with flexible capacity (including Capacity already committed) will have an increased ability to bid in a manner that maximises their profits by shadow pricing against Synergy's "locked in" prices. With improved forecasts, no matter how slightly improved, the risks for IPPs associated with shadow pricing are decreased. Therefore, the logical result is that instances of shadow pricing will increase, and the inefficient wealth transfers will increase.[5]

[4] Page 26 of the EMR Final Report. The EMR Final Report can be found here: https://www.finance.wa.gov.au/cms/uploadedFiles/Public_Utilities_Office/Electricity_Market_Review/Final-Report-Design-Recommendations-for-Wholesale-Energy-and-Ancillary-Market-Reforms.pdf

[5] Synergy has ample evidence of the shadow pricing that already result under the current, economically inefficient and discriminatory, Market Rules. Synergy may be able to provide this evidence to the Rule Change Panel in a confidential manner if the Rule Change Panel cannot substantiate these claims using its access to the more granular data than is available to Synergy (e.g. forecast BMOs that are not anonymous).

Such an outcome will further decouple the balancing price from the economically efficient pricing it should reflect and further decrease the potential competition between the Balancing Portfolio and IPP generators. Ultimately, this flaw in the Market Rules will lead to higher costs for consumers. Therefore, unless the Rule Change Panel modifies RC_2017_02 to create the same gate closure times for the Balancing Portfolio as exist for other Market Participants, the Rule Change Panel should reject the proposed amendments to the Market Rules.

Increases to the LFAS requirements and costs

In its presentation to the MAC regarding RC_2017_02, AEMO stated that it regularly is required to manage large changes in output of generators in a single Trading Interval. AEMO further stated that, occasionally, it is required to manage up to 600MW of changes in dispatch in a single Trading Interval.

Specifically, AEMO made the following points in its presentation:

> *"• AEMO needs to accommodate combined ramping of IPPs that can be more than 3-4 times the ramp rate of the Balancing Portfolio, plus additional movement of Intermittent Generators*
>
> *• Controllers have to start positioning plant up to 110 min out to meet market dispatches"*[6]

It is unclear to Synergy how, under the current Market Rules, AEMO can "start to position plant up to 110 min out" given it does not have a final BMO until just prior to the start of a Trading Interval. The only Facilities to which Synergy considers AEMO can be referring are the Facilities within the Balancing Portfolio.

Synergy considers that this appears to be an acknowledgement by AEMO that, effectively, it uses Synergy's Facilities to provide free LFAS.[7] For the reasons outlined further below, Synergy considers that there is a significant risk that AEMO's use of this "Free LFAS" is only likely to increase if RC_2017_02 is progressed in its current form by the Rule Change Panel. Further, Synergy considers that, when combined with the obvious economic inefficiencies associated with AEMO dispatching the Balancing Portfolio on, and the Balancing Price often being set by,

[6] Slide 10, here: https://www.erawa.com.au/cproot/17714/2/MAC%20meeting%202017-01%20AEMO%20presentation%20RC_2017_02.pdf

[7] Synergy notes the EY report presented to the MAC in March 2014 supports this position. That report showed AEMO (then System Management) used a much greater amount of LFAS than what it currently paid Synergy to provide. The only logical conclusion available from the findings presented by EY is the majority, if not all, of this "Free LFAS" resulted from System Management using the Balancing Portfolio in the manner identified in this submission. EY's presentation to MAC can be found here: https://www.erawa.com.au/cproot/15327/2/Presentation%20Agenda%20Item%204.1%20-%20LFAS%20Update%20LFAS%20Sculpting.pdf

data that is up to 10 hours old, this inefficient cross-subsidy further supports Synergy's argument for an even playing field between the Balancing Portfolio and IPPs.

Synergy notes AEMO's ability to use LFAS (either expressly through the LFAS Markets or by dispatching Facilities within the Balancing Portfolio) will be reduced if Gate Closure is reduced to 30 minutes (or less). Therefore, Synergy considers that, to the extent AEMO is required to use LFAS to allow for these large movements in Facility output to occur, in order to maintain the system in a secure and reliable manner, AEMO will have to:

1. increase the formal LFAS Requirement for all Trading Intervals where there is a *possibility* of significant changes in the output of multiple Facilities (i.e. pay for significantly more LFAS and leave that LFAS idle almost all of the time);
2. Increase the availability and dispatch of ultra flexible plant within the Balancing Portfolio;
3. Increase the likelihood of insufficient LFAS being available when needed; or
4. Adopt a sculpted LFAS Requirement as proposed by EY in its report.[8]

Outcomes 1 to 3 are obviously economically inefficient and/or pose an increased, and unacceptable, risk to power system security and reliability.

Synergy understands that the current Market Rules already allow for a sculpted LFAS requirement. However, Synergy also notes that it appears AEMO chooses to use the Balancing Portfolio to provide the extra LFAS required instead. Therefore, Synergy considers the Rule Change Panel should amend the Market Rules to have an express requirement for AEMO to use a sculpted LFAS Requirement, and not to use the Balancing Portfolio in a manner different to other Facilities.

The EMR also noted in the EMR Final Report that:

> *"Manual intervention is required to manage network congestion when it occurs, which is operationally burdensome and increases the likelihood of errors or inefficient dispatch. The slow speed of such manual processes hinders efficiency improvements to the existing market design, such as later gate closure, a shorter dispatch cycle or co-optimisation of energy and ancillary services."*[9]

[8] EY's presentation to MAC can be found here:
https://www.erawa.com.au/cproot/15327/2/Presentation%20Agenda%20Item%204.1%20-%20LFAS%20Update%20LFAS%20Sculpting.pdf

[9] Page 6: here:
https://www.finance.wa.gov.au/cms/uploadedFiles/Public_Utilities_Office/Electricity_Market_Review/Final-Report-Design-Recommendations-for-Wholesale-Energy-and-Ancillary-Market-Reforms.pdf

This appears to imply that, if AEMO does not make other changes concurrently to its systems, the shorter Balancing Gate Closure proposed in RC_2017_02 will lead to a decrease in System Security and Reliability. The fact that the Rule Change Panel decided to progress RC_2017_02 in the face of this documented evidence of increases to system security and reliability risks (a Wholesale Market Objective), without the proposal even addressing the issue, adds to Synergy's concern at the low bar required by the Rule Change Panel to progress a Rule Change Proposal.

Rule Change Proposals should <u>only</u> be progressed where they are of an acceptable standard

As a matter of process, Synergy is concerned that Market Participants and other submitters of Rule Change Proposals may not have sufficient guidance from existing policies and procedures that explain the level of detail and substantiation required of a Rule Change Proposal before it can be progressed for review by other Market Participants and the Rule Change Panel. It is also possible that current policies do not adequately detail the principles that the Rule Change Panel should apply before allowing a Rule Change Proposal to progress for industry comment.

Synergy would have expected a Rule Change Proposal to contain substantial analysis and justification that explain why the Rule Change Panel should progress the particular Rule Change Proposal. The Rule Change Panel would make a preliminary assessment of the adequacy of the Rule Change Proposal before providing it to the broader market for review and comment.

In this instance RC_2017_02:

- obviously increases information asymmetry (and therefore increases the associated economically inefficiencies as well as decreases to competition amongst generators);
- used obviously flawed analysis in its statement of "benefits" to the market
- provided no evidence of the costs and benefits of the trade-off between its stated benefits and the decreases in economic efficiency (from the increases in information asymmetry and decreases to competition amongst generators) ; and
- did not address the many issues publically identified as being associated with its proposed changes to the Market Rules.

Further, as stated above, the Rule Change Panel also has independent expert advice stating that a change such as this is unlikely to have any material benefit to the market.

Rule Change Proposals such as these are inconsistent with good regulatory practice and should not be permitted to progress without significantly more analysis. An undeveloped Rule Change Proposal requires market participants to conduct the required analysis (rather than initially require Perth Energy to provide a more detailed proposal). This approach has the effect of pushing the cost of this analysis on the rest of the market, potentially causing multiple Market Participants to complete the same analysis in multiple submissions. This can only have the effect of increasing inefficient regulatory burdens upon the rest of the market.

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2. Please provide an assessment whether the change will better facilitate the achievement of the Wholesale Market Objectives.

The below analysis is made on RC_2017_02 as it stands. Synergy considers that the modifications that Synergy has proposed to RC_23017_02 will not conflict with the Market Objectives in the manner outlined below. Specifically, if the Rule Change Panel modifies RC-2017_02 to:

1. allow for all Balancing Facilities to have the same gate closure for making Balancing Submission; and
2. require AEMO to "sculpt" LFAS requirements while redrafting the Market Rules to expressly prohibit it from using the Balancing Portfolio to, effectively, provide "free" LFAS,

Synergy considers that the changes would generally promote the Wholesale Market Objectives.

(a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;

As outlined extensively above, Synergy considers that RC_2017_02 will materially decrease the economic efficient supply of electricity and, to the extent that risks to System Security and Reliability are not increased, decrease the economic efficient supply of LFAS (an electricity related service) to the SWIS. Specifically, Synergy contends RC_2017_02 will result in this unacceptable outcome because:

- The increases to information asymmetry between IPPs and Synergy will result in increases to shadow pricing, and therefore result in less efficient balancing market prices. This in turn will have a significant negative effect on the long-term ability of the Balancing Market to signal efficient entry and exit of Faculties and energy consumption.
- The change will require AEMO to have more Facilities sitting idle to provide LFAS.

(b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors;

As outlined extensively above, Synergy considers that RC_2017_02 will materially discourage competition amongst generators in the SWIS because it will facilitate and incentivise IPP generation Facilities to shadow price the Balancing Portfolio and decrease Synergy's ability to counter any such shadow pricing.

(c) to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;

RC_2017_02 will effectively over-reward flexible fast-start Facilities. Therefore, RC_2017_02 will incentivise an economically inefficient amount of that type of Facility to join the Market.

Such an inefficient investment signal for one type of Facility will result in other Facility types appearing to be uneconomical and, therefore, to be under-invested in. These positive biases to one type of Facility will effectively result in RC_2017_02 discriminating against all other types of Facility.

(d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system; and

As outlined in this submission, RC_2017_02 will have a materially negative effect on the economic efficiency of the long-term price signals in the Balancing Market. Further, it is likely to lead to an increase in LFAS costs.

Both of these outcomes will materially increase the long-term cost of electricity to consumers.

(e) to encourage the taking of measures to manage the amount of electricity used and when it is used.

To the extent that RC_2017_02 causes inefficient price signals that do not match actual costs, RC_2017_02 will decrease the incentive to efficiently manage the amount of electricity consumption, and the time when electricity is consumed

3. Please indicate if the proposed change will have any implications for your organisation (for example changes to your IT or business systems) and any costs involved in implementing these changes.

The implications of this proposed change are adequately explained above. In short, this Rule Change Proposal will cause a significant wealth transfer from Synergy to other market participants with no other benefit that is consistent with the Wholesale

Market Objectives. If implemented the change itself would require Synergy to make minimal changes to its IT systems.

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4. Please indicate the time required for your organisation to implement the change, should it be accepted as proposed.

As above.
