



Wholesale Electricity Market Rule Change Proposal Submission Form

RC_2013_15 Outage Planning Phase 2 – Outage Process Refinements

Submitted by

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Submission

- 1. Please provide your views on the proposal, including any objections or suggested revisions.**

Background

Clause 3.18.18 of the Wholesale Electricity Market (WEM) Rules (Market Rules) requires the Independent Market Operator (IMO) to undertake a periodic review of the outage planning process, as outlined in the Market Rules, and supported by the Power System Operation Procedure (PSOP): Facility Outages.

The inaugural outage planning review, completed in 2011, concluded that the outage planning process was working well but could benefit from some fine-tuning in two areas:

- information transparency; and
- the technical functioning of the outage planning process.

The IMO decided to progress the reforms to the outage planning process in a phased manner:

- Phase one: the first set of reforms was progressed as part of RC_2012_11: Transparency of Outage Information. This Rule Change Proposal, which commenced on 1 October 2013, introduced new standards for the disclosure of information

relating to outages, with the expectation that increased information disclosure would improve pricing efficiency and risk management; and

- Phase two: the second phase of the reform process includes consideration of the technical changes required to make the outage planning process more flexible for Market Participants involved in outage planning.

The IMO decided to order these reforms in this way to reflect its position that increased transparency will deliver significant benefits for the market and also improve the IMO's ability to assess the technical rule changes anticipated for phase two.

Summary of this proposal

The IMO's Rule Change Proposal aims to:

- Clarify obligations for participants with regards to the outage planning process;
- Provide greater flexibility in outage planning; and
- Improve the transparency and consistency of outage planning and balancing market processes.

To achieve these goals, the significant areas the IMO's proposal addresses are:

- obligations to participate in the outage planning process;
- Interactions between Planned Outages and Balancing Submissions;
- Timelines for Planned Outages; and
- Availability criteria for the approval of Planned Outages.

Synergy's¹ view on this proposal

Around the world, most electricity markets have evolved into complex designs aiming to integrate the principles of economic efficiency with the engineering and physics of electricity. The WEM is no different – Market Participants are faced with numerous, and often complex, obligations and processes.

As such, Synergy is supportive of any proposal that aims to reduce complexity and increase flexibility in a process. However, in noting this support Synergy considers that the IMO's proposal could be further developed in order to fully realise the benefits from a more flexible and simple outage planning process.

Market Generators need to undertake a certain amount of Planned Outages in order to be able to provide a reliable service when asked to. For thermal plant these Planned Outages can include A-Class outages (turbine critical path), B-Class outages (boiler critical path) and maintenance outages (both proactive and reactive maintenance outages).

¹ Effective from 1 January 2014, the Electricity Generation Corporation trading as Verve Energy changed its name to Electricity Generation and Retail Corporation trading as Synergy. This name change was instituted to reflect the merger of Verve Energy and the Electricity Retail Corporation trading as Synergy as detailed in the Electricity Corporations Amendment Bill 2013 (WA) (passed by the parliament of Western Australia on 12 December 2013 and received Royal Assent on 18 December 2013).

Synergy's asset management philosophy is to achieve an effective balance between its short term operational requirements and the need to maintain the long term performance, availability and reliability of its portfolio of assets. The primary aim of power plant asset management is to maximise a plant's profitability over its residual life. This objective demands purposeful management of plant risk, condition and availability through optimal and timely maintenance, refurbishment and investment.

Synergy employs contemporary operating and maintenance practices that focus on reliability, longevity and performance in line with the recommendations of the original equipment manufacturer and other industry expert opinion (domestic and international) while utilising the valuable learnings from maintaining such a diverse fleet over many years of operation.

In addition to major outages Synergy notes that fundamental maintenance practices are carried out so as to identify early failure indicators and take corrective action. In support of the strategic asset management objectives, a number of maintenance strategies are put in place:

- Risk based inspection;
- Condition monitoring;
- Online vibration and performance monitoring;
- Statutory plant inspections;
- Statutory maintenance; and
- Time-based maintenance.

Best practice utilities combine this sort of proactive maintenance approach with planned optimisation of reactive maintenance.

Synergy notes that addressing emergent plant issues as soon as possible leads to the most economically efficient and reliable outcomes for the market. This non-mandatory preventative and/or corrective maintenance reduces the likelihood of Forced Outages (and therefore unreliability) in the future. Further, Synergy notes that a facility tripping in service or unplanned events are the most costly events to the market, whereas Planned Outages, when taken at the appropriate time when there is sufficient capacity, are almost benign.

As such, Synergy considers there are two types of Planned Outage:

- A full or partial outage that has been anticipated well in advance; and
- Maintenance outages which have not been anticipated well in advance but are the result of proactive maintenance practices with optimisation of reactive maintenance/emergent needs. These outages could be deferred if there is a commercial driver to do so.

Synergy considers that the outage planning process (for both maintenance and Planned Outages) should be as simple and flexible as possible. As such, Synergy considers that, at its most basic, the elements for approving any outage should be:

- System Management should assess each application in the order that it is received;

- System Management should have the appropriate time to fully assess the potential implications if the outage were approved; and
- System Management should be reasonably satisfied that there would continue to be sufficient capacity margin if the outage(s) were approved.

For Planned Outages these simple principles for outage approval are reasonably well defined in both the Market Rules and the PSOP: Facility Outages. However Synergy considers that the Opportunistic Maintenance processes could be simplified and incorporated, where necessary, into the above framework.

In suggesting this Synergy notes that:

- the Market Rules currently provide adequate incentive for outages being sought early. Synergy notes that clause 3.18.5A of the Market Rules ensures that System Management prioritises outage plans that were received more than a year in advance over those received two days in advance;
- the Market Rules, as proposed to be amended by RC_2013_09: Availability Incentives for Scheduled Generators, will provide more than adequate incentives for Market Participants to apply for too many Planned Outages; and
- there are other off market incentives for Market Generators to return to service following a Planned Outage as soon as practicable, for example for those bilaterally contracted having to source replacement generation at potentially higher prices.

Similarly to its suggestion above Synergy notes that, during consultation on the IMO's five-year Outage Planning Review, a common theme that emerged was that there should be no time constraints with respect to apply for Opportunistic Maintenance, and that the only consideration should be system security and availability.

In response to this PA Consulting noted that:

While there may be room for added flexibility, there is a risk that removing all time constraints on Opportunistic Maintenance may undermine the scheduled maintenance process and the incentive to apply for an outage at the earliest possible time. For now, we note that this as an area that the IMO and System Management may explore further in the future.

Synergy considers that the time is right to consider this proposal.

During the first submission period, a number of Market Generators, including Synergy, met with the IMO to discuss removing the current restrictions on Opportunistic Maintenance. It was suggested that any planned preventative and/or corrective maintenance should be considered to be a Planned Outage, provided it was approved by System Management. This would retain the two types of Planned Outages (pre-accepted/approved and Opportunistic Maintenance) but would simplify the current Opportunistic Maintenance mechanisms outlined in the Market Rules.

It was suggested that the concepts of "On the Day" and "Day Ahead" Opportunistic Maintenance be replaced with one "opportunistic/maintenance" outage which, if sufficient

margin exists, could take effect immediately (or with an appropriate lead time to signal an outage to the market) until the point a pre-accepted planned outage could (if approved) commence.

By allowing Opportunistic Maintenance for any length of time and up to the time a pre-accepted planned outage could (if approved) commence, provided that the Reserve Margin was sufficient, will lead to both economically efficient and reliable outcomes for the market.

In keeping with the above suggestions Synergy requests that the IMO reconsider its proposal for issues 9 and 11:

Issue 9: Prohibition on Opportunistic Maintenance Outages spanning two Trading Days

Synergy is supportive of any proposal that aims to reduce complexity and increase flexibility in a process. As such, Synergy supports removing the current restriction that limits Opportunistic Maintenance to a single Trading Day. However, Synergy considers that it is not necessary to limit Opportunistic Maintenance to just a 24-hour period and requests that the IMO consider allowing Opportunistic Maintenance for any length of time and up to the time a pre-accepted planned outage could (if approved) commence.

Issue 11: Restrictions on the timeframes for making consecutive Opportunistic Maintenance requests

As outlined above, Synergy considers there should be no restrictions on the timeframes over which outages can occur. Synergy reiterates that addressing emergent plant issues as soon as possible leads to the most economically efficient and reliable outcomes for the market.

Synergy would welcome the opportunity to work with the IMO to further develop this proposal.

Interaction with other Rule Change Proposals

Synergy notes that, as part of PRC_2013_16: Outages and the Application of Availability and Constraint Payments to Non-Scheduled Generators, the IMO is undertaking a significant review of the definition of an outage. Synergy is concerned that the IMO is reforming the outage planning process without the definitions of an outage being sufficiently progressed. Synergy considers that any amendments to the definition of an outage should be progressed as part of this proposal.