Independent Market Operator

Concept Paper

2011 Outage Planning Review Recommendations – Information Transparency

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1 INTRODUCTION

1.1 Background

In accordance with clause 3.18.18 of the Wholesale Electricity Market (WEM) Rules (Market Rules), during 2011 the Independent Market Operator (IMO) completed the first five year review of the outage planning process (2011 Outage Planning Review) as described in the Market Rules and supported by the Power System Operation Procedure: Facility Outages (PSOP).

The review, completed by PA Consulting in October 2011, assessed the performance of the outage planning process since Market Start against the WEM Objectives (Market Objectives). The review included an assessment of the need for, and nature of, any reforms to the outage planning process. Overall, PA Consulting concluded the WEM outage planning process was working well, but could benefit from some 'fine tuning' in the areas of outage planning information transparency, and the technical functioning of the outage planning process.[1]

Following on from the completion of the review and in-line with the recommendations of PA Consulting, the IMO are now considering reforms to the outage planning process, including greater transparency of outage planning information to the market. The IMO intends to undertake a phased approach to implementing reforms to the outage planning process.

The first set of reforms, and the focus of this concept paper, will introduce new standards for the disclosure of information relating to outages, aimed at improving transparency in the market. Improvements to the level of information disclosure in the market place on outages are expected to improve the efficiency of the market and allow for enhanced risk management. In turn, these changes should result in more efficient pricing outcomes to the benefit of both Market Participants and energy consumers.

The second phase of the reform process, to be undertaken by the IMO and at a later stage, will concern technical changes aimed at bringing greater flexibility to Market Participants in outage planning. It is anticipated that phase two will be progressed by the IMO once changes to information disclosure have been implemented.

The ordering of the changes reflects the IMO's position that increased information transparency in the WEM will deliver significant benefits and is therefore of a higher priority than implementing the technical changes recommended by PA Consulting, which while anticipated to improve the process from the status quo will not be as broad reaching as those resulting from greater transparency but rather fine tune the existing processes. In addition, it is also possible that the ability to assess the need for the proposed technical changes will improve once there is increased transparency on outage planning information in the WEM.

Consequently, this concept paper will focus on the issues relating to information disclosure. In particular, this concept paper is intended to:

- provide background information and context on the 2011 Outage Planning Review, including discussion of the recommendations for improving information transparency arising from the review; and
- outline possible reforms in response to the to the 2011 Outage Planning Review recommendations in the area of information transparency.

[1] PA Consulting, 2011, Independent Market Operator – Five Year Outage Planning Review – Final Report, p. iii

It is anticipated that this concept paper will provide stakeholders with the opportunity to engage in the reforms via the Market Advisory Committee (MAC) process by providing a discussion framework and inviting comment on pertinent issues.

1.2 Information transparency and the Market Objectives

The objectives of the WEM are:

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

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

(c) to avoid discrimination in the 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;

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

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

The IMO considers that information transparency is an integral part of achieving all the Market Objectives. In particular, the IMO considers improved transparency around outage planning will result in improved economic efficiency in electricity generation (Market Objective (a)), and improved efficiency in price outcomes for consumers (Market Objective (d)).

By improving outage planning information transparency, existing and potential generators will be able to build a more complete picture, and have a better understanding, of the generation sector in WA. In turn, this should lead to a more efficient allocation of resources (including investment in new capacity) and improved generation operations, resulting in improved efficiency in consumer price outcomes. In particular, by providing for transparency of outages in real time Market Generators will be able to appropriately react to market signals. For example advanced transparency of a Planned Outage of a large base load generator during the shoulder periods will provide signals to other base load and mid-merit generators to re-organise planned maintenance for over the same time period and bid into the STEM and Balancing Market during the impacted Trading Intervals. Greater transparency of outages will allow the market to self sort and determine the appropriate mix of generation providing energy thereby promoting efficient pricing outcomes while ensure system reliability is maintained.

Additionally the proposed reforms to improve the transparency of outage planning information will continue to add to part of a larger and ongoing work program by the IMO to increase the transparency and availability of market related information in the WEM.

1.3 Structure of Document

The remainder of the document is structured as follows:

- section 2 provides an overview of outage planning in the WEM;
- section 3 summarises the 2011 Outage Planning Review findings and recommendations
- section 4 discusses the proposed reforms to the publication of outage planning information; and
- section 5 outlines the next steps in the reform process.

2. OVERVIEW OF OUTAGE PLANNING IN THE WEM

Outage planning is a critical feature of robust electricity system management, and is essential for ensuring adequate system reliability and supply. However, outage planning is a complex process which typically involves detailed and comprehensive pre-planning to minimize the frequency and length of outages in the system. Consequently, to ensure the WEM is able to operate effectively given the significant impact that outages can have on energy market outcomes, an outage planning process is provided for in the Market Rules.

The legislative framework for the outage planning process in the WEM is principally contained in two documents:

- the Market Rules: specifically, clauses 3.18 and 3.19, which prescribe the outage scheduling and approval processes; and
- the PSOP: Facility Outages: which puts into practice the operation of the processes intended by clauses 3.18 and 3.19 of the Market Rules.

In turn, the outage planning process is divided into two components. The first is the outage scheduling process. This covers the long-term component of outage planning and requires Market Participants to submit outage plans up to three years in advance of the proposed outage to System Management.

The second component is the outage approval process and is the short-term component. The outage approval process requires Market Participants to apply to System Management to approve previously scheduled outages or undertake unscheduled (opportunistic) maintenance (outages).

Further details of the outage planning and approvals process are outlined in the 2011 Outage Planning Review – Final Report[2], the Market Rules[3] and the PSOP[4].

3. 2011 OUTAGE PLANNING PROCESS REVIEW

3.1 2011 Review

Under the Market Rules, the IMO in conjunction with System Management is required to complete a review of the outage planning processes against the Market Objectives at least once every five year period from the commencement of the energy market. It is also stipulated that the review must include a technical study of the effectiveness of the criteria in clause 3.18.11 and a broad consultation with Rule Participants.[5]

In fulfilment of its obligations, the IMO engaged PA Consulting to undertake the review of outage planning process. The review entailed an initial round of meetings with those involved in the outage planning process, a review of outage planning processes against the Market Objectives, analysis of available relevant data, and the subsequent development of recommendations. PA Consulting undertook extensive stakeholder consultations throughout the review process, including the convening of a public workshop.

PA Consulting delivered the Final Report to the IMO in October 2011.[6]

[2] Available at http://www.imowa.com.au/5yearoutageplanningreview
[3] Available at http://www.imowa.com.au/market-rules
[4] Available at http://www.imowa.com.au/sm_psop
[5] Wholesale Electricity Market Rules, clause 3.18.18
[6] Available at http://www.imowa.com.au/5yearoutageplanningreview

3.2 Outcomes of the Review

Overall, PA Consulting found that the outage planning process had been working well since market start, from both the perspective of System Management as the operator of the process, and Market Generators and Western Power as the users of the process.[7]

Building on this finding, ultimately PA Consulting concluded that the outage planning process was not in need of any wholesale change, but would stand to benefit from a degree of 'fine-tuning' in certain areas.[8] The IMO considers this is an important point to note when considering the recommendations: *any changes arising from this review should seek to consolidate the strength in the current design of the outage planning process, and the performance of the outage planning process to date.*

Broadly, PA Consulting's recommendations can be grouped into four areas:

- improved disclosure of outage information;
- generator and network outage planning interaction;
- outage approval timelines; and
- consideration of the Reserve Margin.

As previously noted, PA Consulting's recommendations for improved disclosure of outage information are the focus of this concept paper. Accordingly, these recommendations will be discussed in more detail. As consideration of the recommendations in the remaining three areas will be addressed by the IMO at a later date, no detailed discussion of these recommendations is provided for in this concept paper.

Increasing outage planning information transparency is a more significant reform than implementing the technical changes PA Consulting recommended to 'fine tune' the outage planning process. The IMO considers the benefits that will likely result from the changes to information transparency would be greater, and more far reaching, than the benefits of minor technical changes. Further, changes to outage planning information transparency may allow for improved assessment of the need for the recommended technical changes.

3.2.1 Recommendations on outage information disclosure

In conducting its review of the current outage planning processes in the WEM, an important focus area for PA Consulting was information disclosure. In the Final Report, PA Consulting noted that "*the disclosure of information in a timely and accessible manner can go a long way in effecting the efficient allocation of outages over time*."[9] In particular, information disclosure can help generators to 'self-sort' their Planned Outages in such a way that system reliability is maintained. This subsequently reduces the pressure on System Management to resolve or facilitate conflicts in, and exercise discretion when managing, outage requests.

However, the review did recognise that System Management does already disclose certain information about Planned Outages, even in the absence of any requirement in the Market Rules or the PSOP in some circumstances. Under current frameworks:

- all Market Participants can see the schedules of all Planned Outages through the Market Participant Interface (consistent with clause 10.6.1(b));
- Market Participants can also view ex-post outages for just their Facilities; and

[7] PA Consulting, 2011, Independent Market Operator – Five Year Outage Planning Review – Final Report, p. 13
[8] PA Consulting, 2011, Independent Market Operator – Five Year Outage Planning Review – Final Report, p. 13
[9] PA Consulting, 2011, Independent Market Operator – Five Year Outage Planning Review – Final Report, p. 44

- as part of the Short Term PASA website reporting, System Management publishes transmission network and generation outage data that is publicly available.[10]

Noting the information that System Management already make available, PA Consulting recommended that amendments should be made to the Market Rules and the PSOP on the presumption that all information related to outages and outage planning should be made public. Specifically, any changes should consider:

- the type of information to be made available, including:
    - the status of the Planned Outage, the equipment affected, the time periods affected, the capacity involved and the resultant net operating margin;
    - information on historic Forced and Planned Outages; and
    - information on major network outages, including if any generating facilities are unable to generate due to the network outage;
- the frequency with which the information is refreshed or updated; and
- the form and mode by which the information is made available.[11]

3.2.2 Other recommendations on outage planning

In addition to making recommendations in the area of outage planning information disclosure, PA Consulting made a number of recommendations in relation to other elements of the WEM outage planning process. Broadly, these recommendations focused on the following three areas:

- generation and network outage planning interaction including recommendations relating to System Management's obligations around records of relevant system components, and a review of the Electricity Transfer Access Arrangements between Western Power and Market Generators;[12]
- outage approval timelines, including the recommendations on the timeframe between System Management granting an approval and the outage commencing, the cut-off times for On the Day Opportunistic Maintenance (ODOM) requests, changes to the nature of generator assurances about availability sought by System Management, and the ability for Opportunistic Maintenance to span two Trading Days;[13] and
- the Reserve Margin, in particular if the level at which the Reserve Margin is being set is resulting in economic inefficiencies or compromises to system security.[14]

Noting the IMO's approach to implementation of the recommendations arising from the 2011 Outage Planning Review, PA Consulting's other recommendations are not discussed in detail in this paper. Detailed discussion of these recommendations will occur when the IMO considers the remainder of the recommendations.

Nonetheless, for completeness and stakeholder information, the IMO have incorporated as Appendix 1 a table highlighting all the recommendations made by PA Consulting in the 2011 Outage Planning Review, with accompanying objectives for each of the recommendations.

[10] PA Consulting, 2011, Independent Market Operator – Five Year Outage Planning Review – Final Report, p. 45
[11] PA Consulting, 2011, Independent Market Operator – Five Year Outage Planning Review – Final Report, p. 50
[12] PA Consulting, 2011, Independent Market Operator – Five Year Outage Planning Review – Final Report, p. 33
[13] PA Consulting, 2011, Independent Market Operator – Five Year Outage Planning Review – Final Report, p. 42-43
[14] PA Consulting, 2011, Independent Market Operator – Five Year Outage Planning Review – Final Report, p. 26-27

4 CHANGES TO INFORMATION TRANSPARENCY IN THE WEM

4.1 What is the IMO proposing?

A central feature of the IMO's on-going market development strategy is to increase transparency, and provide Market Participants with more information. The IMO recognises that, at times, a lack of transparency may have resulted in sub-optimal outcomes for Market Participants and energy consumers.

At a high level (and discussed in more detail in section 4.2, below), improved information and transparency in electricity markets can result in:

- improved confidence in the market;
- better (more efficient) decision making and risk management;
- reduced opportunities to manipulate the market;
- reduced barriers to entry; and
- enhanced competition.

Reforms to the publication of outage planning information are an important element of meeting the Market Objectives. The IMO agrees with, and accepts, PA Consulting's recommendations in the area of outage information.

Building on the 2011 Outage Planning Review recommendations, the key issues in considering changes to information disclosure are:

- the type of information;
- frequency of information publications;
- the form and mode of publication; and
- who will have access to information.

Each of these issues are discussed in turn, below.

4.1.1 Type of information

For confirmed outages (generally Planned Outages and ex-ante logged Forced Outages and Consequential Outages), the IMO considers that the following types of information should be published:

- the facility or item of equipment on outage, including the specific unit where it is a generator with multiple units, and transmission and distribution lines and assets where relevant;
- outage type (planned, forced, consequential)
- the reasons for the outage;
- the quantity of capacity on outage;
- the time period of the outage (expressed in terms of the number of Trading Intervals applied for);
- outage status (accepted, approved, rejected);
- the time and date when the application was lodged with System Management; and

- the time and date when approval was granted by System Management.

For unconfirmed outages (generally ex-post Forced Outages and Consequential Outages), the IMO is proposing to publish:

- the facility or item of equipment on outage;
- the cause of the outage;
- outage type (acknowledging that Forced Outages and Consequential Outages will not be confirmed under 15 Business Days after the event);
- for generators, the quantity of the outage;
- for equipment, de-rating information; and
- start time and date, and expected end time and date of the outage.

The IMO notes that the information proposed to be published for both confirmed and unconfirmed outages is information that Market Participants are already required to provide under clauses 3.18 and 3.21 (respectively) of the Market Rules.

4.1.2 Frequency of publication

The IMO is proposing that this information for all outages be published as soon as it becomes available to System Management. This will allow for relevant updates to outages to be provided through to industry in a timely fashion, thereby enabling faster responses by Market Participants.

4.1.3 Form and mode of publication

In order for the changes to outage information publication to be as effective as possible and minimise regulatory burden on Market Participants, it is important that the information will be published in a standardised and easy to follow format.

To provide stakeholders with a better understanding of the way in which the information types outlined above will be published, the IMO, in conjunction with Power System Consultants, have prepared a preliminary user interface specification.

The user interface will provide graphical representations of outage information for both facility and equipment outages, presented in a three column layout.

The left column will contain the 'search' section and will allow the user to specify a given Trading date to use a starting point for the display of the outage timeline.

The middle column will contain the outage timeline, reflecting the relevant time period (daily, monthly or yearly), and will list the participant name, facility name and fuel type for each outage, as well as specifying the outage type (via colour coding).

The right column will contain the outage detail information (as applicable), capturing:

- participant name;
- facility name;
- start and end trading interval;

- the reason for the outage (planned, forced, consequential) and if the outage is planned, the sub-reason is included (day ahead opportunistic maintenance, on the day opportunistic maintenance);
- description of the reason for the outage;
- the status of the outage (accepted, approved, rejected, cancelled);
- the time and date the outage was approved by System Management;
- outage contingency plans;
- the date the outage was lodged in the System Management IT system by the Market Participant; and
- a 'last update' field, showing the date the outage was last transferred to the IMO from System Management.

The user interface will be interactive, with the user able to specify the time frame for the outage date, the scale of the timeline (yearly, monthly, daily), sort the representation of outages in the timeline, a grouping function, and also provide for display 'filters' to show (or remove) cancelled and rejected outages.

To allow readers to best understand the IMO's proposed user interface a copy of the current draft version of this document, including a graphical representation of the interface, has been provided as Appendix 2 below.

4.1.4 Access to information

Given the broad market value of information on outage planning and not only current Market Participants the IMO is not proposing that access to the information be restricted. That is, the IMO intends that the information will be made publically available.

4.2 Information Transparency – Costs and Benefits

Information has a critical role to play in the effective and efficient functioning of competitive electricity markets, with market information serving an important role for the System Operator, Market Participants and regulators.

For current and potential Market Participants, improved access to market information can assist with, or improve:

- interpreting and understanding past events;
- predicting the possible evolution of supply and demand conditions in the market; and
- business planning and development.

For market regulators, improved transparency in information can result in:

- improved development and amendment of market frameworks and rules;
- better investment and capacity planning and management; and
- improved monitoring of market functioning, including signs of anti-competitive behaviour, abuses of market power or market failures.

In considering the merits of changing information disclosure in the market, it is important to consider both the potential benefits and costs of information transparency.

From an electricity market perspective, there are broadly four main ways in which the publication of information is beneficial to market functioning.

- ***Publication of information can reduce risk and uncertainty***. Market Participants need information about the determinants and movements of prices in order to operate in an efficient manner. Low or diminished understanding of this information can result in increased risk and uncertainty, and increased costs for Market Participants to managing the risk and uncertainty.[15]

- ***Improved information transparency can remove information asymmetries***. Uneven (asymmetric) access to relevant market information can result in competitive advantages accruing to some Market Participants (placing others at a competitive disadvantage), facilitate market manipulation, and discourage participation in the market. Allowing equal (even) access to information should result in a more level playing field, improving market participation (removing barriers to entry) and liquidity, and market predictability. This should ultimately lead to market prices being lower.[16]

- ***Information release can result in improved facilitation of better market monitoring***. Noting that there is already some outage planning information transparency afforded to market regulators (such as the IMO), improved availability of information to both market regulators and third parties can assist in more effective monitoring of use of market power and other actions.[17]

- ***Information transparency is also important in ensuring system security in electricity markets***. Generator information is an important element of a well functioning wholesale electricity market. Access to this information can lead to improved understanding by all relevant market stakeholders of system supply and demand, resulting in appropriate investment and planning decisions being made to ensure adequate system security.

The IMO has previously undertaken some consideration of the issue of information disclosure and electricity markets. In 2010, the IMO engaged consulting firm LECG to review the regulatory approaches to information disclosure adopted in electricity markets in Australia and overseas. The finding of this project supported the view that well-informed participants make better trades than those less informed, and that information disclosure will therefore lead towards competitive behaviour.[18] In turn, improvements in competitive behaviour should lead to more efficient pricing outcomes and, ultimately, benefits for end-use consumers.

However, improving information transparency is not without potential costs. The IMO has identified three areas of potential costs that may be imposed by enhanced information transparency.

- ***Improved transparency in information can potentially result in reduced incentives for innovation***. For a business to innovate (technically, operationally, or administratively) some types of information may need to remain private in order that the firm may earn an adequate return on that investment in innovation. Where such information is disclosed to the market, the incentive to innovate may be reduced.

[15] Hooper, L, Twomey, P & Newbery, D, 2009, *Transparency and confidentiality in competitive electricity markets*, p. 6
[16] Hooper, L, Twomey, P & Newbery, D, 2009, *Transparency and confidentiality in competitive electricity markets*, p. 6
[17] Hooper, L, Twomey, P & Newbery, D, 2009, *Transparency and confidentiality in competitive electricity markets*, p. 6
[18] LECG, 2010, *Report for the IMO – Rationalisation of the confidentiality status classes in the WEM*, p. 3

Whilst the IMO recognises that disclosure of commercially sensitive information could potentially impair effective market functioning, given the particular nature of the information being discussed in this instance, it considers publication is not commercially sensitive and therefore likely to reduce innovation. Exposure to public scrutiny could in fact result in increased innovation.

- ***The publication of market information may potentially involve information system costs to allow for publication and disclosure***. The magnitude of these costs will be determined by a number of factors, including the complexity of the information to be published, the format of the published information, the frequency of publication, and the number of information components.

  The IMO have held preliminary discussions with System Management on the implications of changed disclosure arrangements for outage planning on System Management information systems. These preliminary discussions suggest there would be some increase in fixed and ongoing (operational) costs of ensuring the information systems are able to facilitate disclosure of outage planning information. The IMO notes that the information being currently considered to be published by the IMO relates to existing information streams provided for under the Market Rules. System Management is currently further investigating the likely costs associated with the proposed reforms. Whilst the IMO recognises these would be tangible costs faced by System Management, at this point in time, the IMO considers the benefits associated with greater information transparency will outweigh the costs.

- ***Information transparency can result in collusion between Market Participants, particularly in markets where there are only a few dominant firms (and no medium or smaller competitors)***. There is the potential for such behaviour particularly in electricity markets, where the cost of entry is high, the product is homogenous, firm cost structures and technology are well known, and demand is inelastic.[19]

  This potential cost is balanced by the benefit of information disclosure leading to reduced informational asymmetries and barriers to entry, as discussed above. In addition, the IMO also considers that in the case of the WEM, competitive pressures in the energy market are sufficiently strong to mitigate the risk of Market Participants colluding, particularly in the area of generator outage planning.

Noting the competing sources of benefits and costs arising from information disclosure, and in light of the reasons noted above, the IMO considers, on balance, the benefits of improving disclosure of outage planning information in the WEM are likely to outweigh the costs. Whilst there will be some costs expected to be incurred as a result of the changes, the IMO considers that these will be outweighed by the benefits which will accrue to Market Participants, market oversight bodies and consumers.

Further, the IMO also note that during the 2011 Outage Planning Review, there was industry support for reforms in this area. Given this, and its views on the likely costs and benefits, the IMO considers reforms in the area of outage planning information transparency in the WEM are both justified and necessary.

[19] Hooper, L, Twomey, P & Newbery, D, 2009, *Transparency and confidentiality in competitive electricity markets*, p. 7

5 NEXT STEPS

As noted earlier in this document, the purpose of this concept paper is to inform the MAC of the proposed reforms to the outage planning process to be implemented by the IMO (via rule changes as necessary).

The IMO recommends that the MAC:

- Discuss the proposed reforms around information transparency for outages;
- Note that the IMO will:
    - Continue working with System Management to determine the required IT changes and associated costs; and
    - Prepare a Pre Rule Change Proposal to be presented to the MAC in July/August 2012; and
- Note that reforms to other aspects of the outage planning process as recommended by PA Consulting will be considered by the IMO following the progression of this first phase of work.

APPENDIX 1: TABLE OF 2011 REVIEW RECOMMENDATIONS

The following table provides a summary of the PA Consulting recommendations made in the 2011 Outage Planning Review.

Recommendation	Outage Planning Review Final Report - Recommendations	Intended outcomes/objective of recommendation
Reserve Margin		
1 (Section 3.5)	"It is recommended that System Management (SM) consider expanding the Power System Operation Procedure (PSOP) to include how fuel composition might factor into its considerations in the outage approval process"	• To improve transparency and confidence
Generation and network outage planning and interaction		
2 (Section 4.3)	SM should consider changes to Market Rule (MR) 3.18.2(c)I to constrain the Equipment List to "all transmission network Registered Facilities that could limit the output of a generating facility or the participation of Demand Side Management during a planned outage."	• Would allow SM to manage only the transmission network equipment that would have an impact on the output of a generating facility during a planned outage (ie. more efficient allocation of SM resources).
3 (Section 4.3)	"Electricity Transfer Access Agreements (ETACs) between Western Power and generators should be reviewed to ensure that they provide a sound basis for the management of the interaction between transmission outage and the transmission services provided by the Network Operator to the Market Participants."	• Network outages should be coordinated with generators • ETACs should play the primary role in managing the interaction between the network operator and affected generators • Should set out the rights and obligations of each party in the event of a Transmission outage which affects Generation
4 (Section 4.3)	"IMO should, in conjunction with SM and Market Participants, develop changes to the MR establishing SM's obligations with respect to the disclosure of information on planned outages" SM should develop protocols within the PSOP which set out how the new obligations are to be discharged. The protocols should encompass the following: - The type of information to be made available	• Help parties schedule outages in a way that minimises instances of conflict

	- The frequency with which the information is refreshed; and - The form and mode by which this information is made available.	
Outage approval timelines and constraints		
5 (Section 5.6.1)	SM should consider amendments to the PSOP and, if necessary, the MR to allow a limited number of advanced-approval outages per Facility per year. These advanced-approval outages would be subject to the normal outage scheduling process.	• Participants have indicated current timelines can be insufficient. • Participants often submit their Resource Plans for a Trading Day without knowing whether their outage request will be approved. • Participants may get left with surplus contracts for outage that doesn't proceed. • Participants may have set in place logistical arrangements for maintenance to proceed only to find their outage plan is turned down.
6 (Section 5.6.1)	The IMO should consider amending MR3.19.2(b) to the effect that on-the-day Opportunistic Maintenance may be requested any time on the Trading Day or after 10am on the Scheduling Day.	• Will improve the interaction of day-ahead and on-the-day opportunistic maintenance outage timelines. • Improve market participant maintenance planning and certainty.
7 (Section 5.6.2)	SM should develop for consideration by the IMO proposed changes to Section 13.5, 14.7 and 15.5 of the PSOP to the effect that the written declaration pertain to the period of the outage, rather than a period prior to the outage commencing. The requirement to provide a written declaration should be mandatory. All such declarations should be published by SM.	• Time periods requested for in outage applications will align more closely with time periods needed for the outage. • Would allow generators to fix problems properly in the first instance if could apply for opportunistic maintenance and extend the outage, where necessary.
8 (Section 5.6.3)	The IMO should propose a rewording of MR 3.19.3A(b) to the effect that Opportunistic Maintenance can be granted over any 24 hour period, irrespective of whether it overlaps Trading Days.	• Would allow maintenance that is opportunistic and short term to span two days (eg. from 10am to 10am). • Would better achieve the intent of the MR to ensure that requests for Opportunistic

		Maintenance are in fact opportunistic in nature.
Information Disclosure		
9 (Section 6.5)	The IMO, in conjunction with SM and Market Participants, should develop a change to the MR establishing SM's obligations with respect to the disclosure of information on planned outages. Corresponding protocols within the PSOP: Facility Outages should be made, setting out how the new obligations are to be discharged by SM. The MR and the protocols should anticipate and encompass the following: • The type of information to be made available; • The frequency with which the information is refreshed; and • The form and mode by which the information is made available. The type of information should include: • The status of the planned outage, the equipment affected, the time periods affected, the capacity involved and the resultant net operating margin. • Information on historic forced and planned outages. • Information on major network outages, including whether any generators are unable to generate due to the outage. The frequency of the information published should be sufficient to inform participants about the extent to which the system can accommodate both longer term and short term opportunistic outages. The form and mode of publication is likely to be web-based, probably using the existing SMITTS system. Information should be readily downloadable, with numerical and graphical representations.	• Publication of information will help generators 'self-sort' their planned outages to preserve the reliability of the electricity system (efficient allocation of resources) • Reduces pressure on SM to resolve/facilitate conflicts in outage requests • Would improve transparency and confidence in outage planning processes. • Would bring WEM in line with global norms

APPENDIX 2: DRAFT USER INTERFACE