

Our ref: 8974013

Mr Allan Dawson Chief Executive Officer Independent Market Operator PO Box 7096 PERTH WA 6850

Dear Allan

Second Round Submission: RC_2011_10 - Competitive Balancing and Load Following Market

System Management appreciates the opportunity to provide a submission to the second round of consultation on Rule Change Proposal RC_2011_10 - Competitive Balancing and Load Following (CBLF) Markets (the Proposal).

Structure of System Management's Second Round Submission

System Management's second round submission continues the same format as its first round submission, and consists of this covering letter setting out its high level concerns, the standard rule change submission form at Attachment A and its updated risk register at Attachment B.

Background

As set out in our first submission dated 1 November 2011, System Management reiterates its support for the work underway to introduce new trading markets for Balancing and Load Following Ancillary Services respectively.

These markets are expected to reduce some existing operational risks in the South West Interconnected System (the SWIS) such as:

- risks of excessive generation during overnight operation particularly during the lightly loaded shoulder seasons,
- excessive ramping by IPPs whilst attempting to meet unrealistic resource plans, and
- intermittency in dispatch caused by increased penetrations of renewable capacity on the SWIS.

The Western Power Board has approved System Management's Business Case to deliver the required system, procedures and business processes for the new market and is committed to implementing these in a timely manner. Recruitment of the project team is now complete and work on the necessary systems has begun in earnest.

While good progress has been made since the release of RC_2011_10 on 23 September 2011 there are still a number of significant outstanding issues that are likely to require further Rule or Procedure changes and which will have material impacts on the final business system requirements. On this issue, System Management welcomes Connecting people with energy

the IMO's efforts through the use of a steering group to provide better management of the change control process.

The new markets are a significant change for all stakeholders, and key market documents (namely the Rules, Market Procedures and IT Interface Specification) continue to evolve. Before setting the commencement date, time is needed by System Management and Market Participants to fully consider the impacts of any changes to the requirements.

Despite the recently implemented improved control measures, Western Power, and its ring fenced business unit System Management, remain concerned about the IMO's focus on achieving target dates that may put at risk the proper resolution of outstanding market issues. Further pressure is coming from the ongoing changes to the Market Rules and Procedures. Both Western Power and System Management are of the strong view that a more realistic transitional go-live date needs to be determined with immediate urgency to enable target dates and cost targets to be met.

System Management is concerned that some of the key risks previously identified have not been resolved. Although a substantial collaborative effort by both System Management and the IMO in the period since the first consultation period resulted in good progress on the majority of issues raised in our first submission, agreement has not been reached on a number of key risks.

Importantly this includes the risk identified in its first round submission that there remains no clear enforceable obligation upon participants to submit their available capacity in their balancing submissions.

Further System Management's inability to confirm a facility's available capacity in real time presents a material and substantial risk to power system security.

System Management's Risk Register

As stated above, the efforts of System Management and the IMO have resulted in closure of a substantial number of the original 'Emergent' risks. On many of these risks that remain, agreement has been reached and System Management is waiting to confirm this upon release of the amended draft Rules. This second group of risks is identified as 'Close Pending' in the risk register.

Draft Rule changes since our original submission increase the risk of System Management being unable to meet its obligations under the legislation and regulations. These risks need to be appreciated and appropriately mitigated and managed through further changes to the Market Rules and the resulting systems, procedures and processes. System Management's second round submission identifies these risks.

The complete list of unresolved risks is shown in the risk register at Attachment B.

Continuing evolution of the Proposal

The design set out in the original Proposal is continually evolving and subject to change and this has both scope, cost and timeframe implications for the delivery of System Management's business systems for the new markets.

The Draft Rule Change report introduces a range of new obligations on System Management to provide data to the IMO. There are also ongoing discussions between the IMO and System Management on design issues that will potentially have flow on effects to the current draft Rules and Market Procedures.

Importantly, the Market and its participants require sufficient time to fully consider the impacts of any further amendments to the draft Rules prior to their finalisation.

System Management believes that the IMO should consider and communicate to stakeholders how best it can achieve an appropriate level of transparency and governance around its processes in relation to RC_2011_10 under these circumstances, including the need for extensions to the current round of consultation or a further consultation phase.

A related issue is that the current Market Trials are being conducted based on a draft set of Rules. System Management notes that robust testing can only occur once the draft Rules are finalised allowing all system requirements to be specified. The continuous evolution of the draft Rules puts the value and purposefulness of the current Market Trials at risk.

Alignment of Market Rules and Market Procedures

The IMO's adoption of outcomes based drafting for the proposed Rules places significantly more importance on the Market Procedures than has been the case in the past.

System Management has undertaken a large body of work to prepare its Power System Operating Procedures (PSOPs) for the Proposal with some of these now having entered the formal procedure change process.

Sufficient time is required for the finalisation of the procedure change process for System Management's PSOPs, including any timeline extensions to allow participants additional consultation time where necessary (as is now allowable as a result of RC_2011_12). Again, once certainty in relation to the PSOPs is achieved, participants must be given time to implement the changes.

System Management remains concerned that the IMO's focus on achieving timeframes could result in the implementation of changes without sufficient consideration and resolution of identified issues for the Market and its participants. System Management's strong view is that the alignment of the final Rules and the final Market Procedures should not be overlooked in favour of achieving the April 2012 proposed commencement date

Oversight of WEM Policy Development

In its first round submission System Management raised broader governance issues concerning transparency, accountability and quality of process surrounding the development of the Proposal. System Management shares the Economic Regulation Authority's view that strategic and fundamental energy policy changes, such as those proposed in RC_2011_10, should not be conducted by the market administrator.

Recently the State Government announced the establishment of the Public Utilities Office (PUO) to adopt the responsibilities of the Office of Energy. These arrangements are to be implemented by the end of March 2012. Given the PUO's initial focus will be on energy markets, the IMO should consider the need for the PUO to review the Proposal and its implications prior to commencement of the new Rules.

System Management continues to support reform of the Wholesale Electricity Market but notes that little progress has been made on other areas of the market that have required attention since 2010.

Outstanding issues other than competitive balancing and load following that have direct impact on the efficacy of the Market include:

- the reserve capacity mechanism
- capacity refunds
- · outage planning process clarity
- registration
- commissioning and testing

Reforms in these areas have not commenced at this stage.

Systems and Costs

There has been no significant change to System Management's projected cost for the implementation of the systems required for the CBLF markets since its first round submission on RC_2011_10 in November 2011. Details of these costs are provided in the Submission Form at Attachment A.

The continuing evolution of the Rules is causing some rework to be necessary. This is being managed through the previously approved program contingency. However this has used up the available contingency, and has therefore taken away System Management's flexibility to manage other potential unforeseen events during its implementations for the new market initiatives.

Timeframes for system development

The ability to finalise detailed design and building of the IT systems required under the markets by the proposed go-live date is largely dependant on:

- the degree to which the Rules and design for the proposed markets remain constant between now and the go-live date;
- the resolution of issues System Management raised in its first round submission to RC_2011_10; and
- the resolution of market design issues identified by System Management as part of its design work.

Our current projection of the work plan would allow a market go-live date of 1st July 2012. This date assumes all outstanding issues are resolved by 3 February 2012 and there are no further changes that will have a material impact on the design of our systems.

Given the extent of issues still requiring resolution between System Management and the IMO, and the likelihood of additional issues being raised by other participants and the time needed to resolve them, we consider that this July date is optimistic. Further discussion on the system development timeframes is contained in our Submission Form at Attachment A.

Conclusion

System Management continues to support the ongoing evolution of the Market with a focus on ensuring the best possible outcomes are achieved in addressing SWIS operational issues, maintaining SWIS security and reliability and meeting the market objectives. To achieve these outcomes the delivered systems, procedures and business processes for the new market must accord with clearly defined Market Rules. The scope of work that flows from this must be properly managed to ensure that the costs of implementation and project schedule timeframes are not exceeded.

The draft Market Rules are still evolving and this is creating scope changes which are resulting in the risk of cost and schedule overruns. This also increases the risk of System Management being unable to meet its obligations under the *Electricity Industry Act 2004* and subsidiary legislation, including the Market Rules. These risks, captured in System Management's risk register, form an important part of this submission.

System Management will continue to work with the IMO and market stakeholders to manage these issues and risks by:

- working with the IMO and other market stakeholders to ensure that the Market Rules and Procedures clearly define the obligations and processes in the new market, and
- ensuring that where there are impacts on scope, costs or schedule that these are clearly identified and addressed in a manner consistent with appropriate project management practice.

System Management looks forward to an opportunity to discuss the issues raised in this submission and to work to resolve them as required.

Yours sincerely

Phil Kelloway

Branch Manager, Planning and Market Operations

System Management

Attachment A – Submission Form

Wholesale Electricity Market Rule Change Proposal Submission Form

RC_2011_10 Competitive Balancing and Load Following Market

Submitted by

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Submission

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

System Management (SM) is pleased to provide its views on:

Draft Rule Change Report: Competitive Balancing and Load Following Market

Ref: RC 2011 10 Standard Rule Change Process

Standard Rule Change Process

Date: 6 December 2012

SM is committed to complying with all of its functions and obligations under the *Electricity Industry (Wholesale Electricity Market) Regulations (2004)*, which include but are not limited, to its functions and obligations under section 13 of that Regulation. In particular:

SM has "the function of operating the SWIS in a secure and reliable manner."

SM "must act in a manner consistent with the objectives set out in section 122(2) of the Act." An objective of focus is "to promote the economically efficient, safe and <u>reliable production and supply of electricity and electricity related services</u> in the South West interconnected system;" (emphasis added)

The ability to physically dispatch generators in accordance with security and reliability constraints and a price based merit order will help overcome some of the issues for SM in operation of the SWIS and will lead to a more efficient outcome when compared to the current rule based order.

SM continues to support the introduction of a Competitive Balancing Market and Load Following Ancillary Service Market.

Application of Western Power Corporations Risk Management Policy

SM's approach to this submission has been to assess the Draft Rule Change Report (DRCR) to

- 1. Ascertain the extent to which the DRCR addresses or mitigates the Risks identified during the First Submission Period.
- Identify if risk that may arise from changes in the DRCR from the initial proposal or discussions with the IMO.

In accordance with Western Power's Risk Management Policy, which in turn is based on Australian (and International) Standard AS/NZS ISO 31000:2009 Risk management – Principles and guidelines.

The following new Extreme Risks have been identified in addition to those highlighted in SMs first round submission.

The Balancing Forecast and Dispatch Outcomes are Materially Different

The price signalling process fails to take into account the physical constraints of the power system. These include start up times, generation realtime dispatch and network constraints. As such, potentially misleading information of their future dispatch requirements will be provided to participants. This may lead to them placing their facilities in a state where they are unable to start in time, leading to potential supply shortfalls.

The Dispatch Criteria and the "Reduced Extent" clause are Unclear

The dispatch criteria is unclear and so undermines System Management's ability to perform its function of operating the SWIS. This poses a risk to Power System Security in that the participant's are unclear of the obligations and responsibilities.

In addition the "reduce extent" clauses are unclear. This poses a risk to Power System Security by allowing the participant to respond in a way that exacerbates Power System frequency deviations.

SM has provided proposed revisions to the relevant clauses as Appendix 1 which it believes make these unambiguous.

Civil Penalty Provisions & Protected Provisions

The DRCR is silent on the changes required to these provisions. Assuming that they exist as per the initial proposal then SM's comments in its first round submission still remain as follows:

SM believes that a civil penalty must exist for market participants not making all its available capacity to the Balancing Market. Examination of the proposed penalties does not show that one exists.

SM believes the penalty regarding clause 7B.2.13 should refer instead to clause 7B.2.14.

SM believes that the protected provision of clause 10.2.1 is not appropriate as it relates to the IMO having sole discretion on confidential information.

SM believes that the removal of the deadine for the Procedure change requires removal of the protected provision of clauses 2.10.17, 2.10.18 & 2.10.19.

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

SM believes that, as described above, the impacts on the reserve capacity mechanism and the ambiguity associated with dispatch the DRCR proposes fails to better facilitate the achievement of the market objective "to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;" (emphasis added)

The proposed rule changes do promote productive economic efficiency by allowing a larger participation in service provision.

As an adjunct to this submission, SM notes an opportunity "to promote the <u>economically efficient</u>, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;" (emphasis added) exists in terms of dynamic economic efficiency.

The Balancing Price does not reflect the true marginal cost of electricity as it does not reflect the

- The marginal price when DSP are dispatched, and
- The realtime capability of the marginal generator, rather a price based on balancing offers assuming all facilities can fully comply to the dispatch instructions.

Hence SM believes that the proposed rule changes should be amended to capture this opportunity.

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.

Prior to the commencement of the WEM in 2006, the Office of Energy required SM to retain, as much as possible, its existing systems and processes. The rationale for this was related to both cost effectiveness and risk management. Consequently SM's suite of business systems and processes have only been integrated to a limited extent with SM's market responsibilities. This approach has been sufficient for the current day ahead balancing arrangements, however its capacity is limited to those arrangements.

Given the fundamental nature of the changes proposed in the MEP, whilst incremental systems and process improvements may lower the effort and costs required, they would fall well short of meeting the requirements of the near real time balancing and load following market. System Management has therefore been given no option but to redesign its systems and processes to meet the requirements of near real time processes of the new market. This work has been ongoing and resulted in System Management's submission to the Western Power Board of Directors in November 2011 based on projected costs of implementation with the market design as understood at the time

There has been no significant change to SMs projected cost for the implementation of the systems required for the CBLF markets since its first round submission on RC_2011_10 in November 2011

In summary:

- The introduction of the new market will have a fundamental impact on the manner in which SM performs its function in the WEM and will require significant effort to enhance and supplement its existing systems which are only suitable for the present day ahead market.
- The estimated incremental capital cost (i.e. costs above that already approved in SMs Allowable Revenue) of the above scope of works is \$11.95 million (including allowances for risk and escalations) over the 2011/12-2012/13 financial years. Ongoing incremental operating costs are estimated to average \$1.72 million per annum (including allowances for risk and escalation) over the next 4 years. There will also be a substantial financing fee due to the delay between project spend and recovery via increase market fees.

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

The Competitive Balancing and Load Following (CBLF) components of the Market Evolution Project (MEP) being implemented by the IMO are progressing through the systems development phase. Two important and IT based operational systems under development are the market system operated by the IMO and the System Management Automated Real Time Systems (SMARTS). The ability to finalise detailed design and building of both systems is heavily dependent upon the design of the CBLF market which is defined in the Rules and the market procedures.

As stated to the Rules Development & Implementation Working Group back in August 2011 in order to meet the April 2012 go-live SM baselined its business system design on the new market documentation available at that time.

Subsequently, Western Power has committed to, and implemented, the SMARTS program. This has included gaining approvals for investment in the program and the appointment of an IT systems development service provider. Appointment of internal SMARTS development staff has also been undertaken. A significant proportion of the work on the system and operational procedure development has occurred. System Management has also begun working with market participants on the specifications for systems that they will be required to install.

Since August 2011 there have been numerous new versions of the Rules released and development of Market Procedures. Up until mid November 2011, SM was largely able to accommodate these changes and developments with little impact to cost/schedule as it had been in a planning and scoping phase and thus in its November 2011 Rules Response stated that it was targeting a late April 2012 go-live. However SM also stated that meeting this date was dependant on the high level CBLF design, and associated rules, being finalised within a timeframe that allowed SMARTS design, testing and commissioning to be achieved.

However along with the Western Power Board approval for the project in mid November 2011, system implementation began (including Detailed Design) but this effort has been hampered since by:

- 1) Inability to lock down and/or requirement to revise high level design due to:
 - a. the Rule changes put out in the IMOs December 2011 Draft Rule Change report
 - b. uncertainty on resolution of issues SM raised in its first submission on the Rule change
 - c. uncertainty on resolution of market design issues SM has identified as part of its design work.
- 2) Limited key resources being involved in Rules and Procedure review and discussion with the IMO and the associated issues instead of being involved with the detailed designs.

Thus it has become clear that delays in finalising the Rules and, therefore system design requirements, has had a negative impact on the ability to progress the SMARTS development according to the original plan.

Our current projection of the work plan would allow a market go-live of 1st July 2012. This date assumes all outstanding issues are resolved by 3 February 2012 and that there are no further changes, that will have a material impact on SMARTS design.

Given the extent of issues still requiring resolution between SM and IMO, and the likelihood of additional issues being raised by other participants coupled with the probable time to resolve them, we consider that it is likely that this date is optimistic. This means that the final go-live date is mainly driven by the nature of any further changes to the currently drafted Rules.

The SMARTS Program Manager is working to identify and implement initiatives that will deliver a compacted completion date to the SMARTS implementation. We are hopeful that some gains can be achieved. However, as discussed above, the final completion date will be driven by the timing of the finalisation of CBLF Rules and market design issues.

Appendix 1 Revisions to clarify dispatch and reduced extent

Proposed Revision to clarify the Dispatch Criteria

- 7.6.1B. In seeking to meet the Dispatch Criteria System Management must, subject to clause 7.6.1C, issue Dispatch Instructions in the following descending order of priority:
- (a) to Balancing Facilities in the order and for the quantities they appear in the BMO, with a ramp rates less than or equal to the Ramp Rate Limits;
- (b) to Balancing Facilities Out of Merit, in the order they appear in the BMO after the Balancing facilities referred to in (a) and for the quantities they appear in the BMO, with a ramp rates less than or equal to the Ramp Rate Limits whilst maintaining System Security;
- (c) to any Balancing Facility Out of Merit, with a ramp rates less than or equal to the Ramp Rate Limit and not exceeding the non-ramp rate Standing Data limitations and any other relevant information available to System Management; and
- (d) to a Non-Balancing Facility in accordance with the Non-Balancing Dispatch Merit Order, not exceeding the Standing Data limitations.
- 7.6.1C. System Management may only issue Dispatch Instructions under:
- (a) clause 7.6.1B(b) in priority to clause 7.6.1B(a);
- (b) clause 7.6.1B(c) in priority to clause 7.6.1B(b); and
- (c) clause 7.6.1B(d) in priority to clause 7.6.1B(c),

where:

- (a) System Management considers, on reasonable grounds, that it needs to do so in order to avoid going into or is in a High Risk Operating State condition or an Emergency Operating State condition; or
- (b) a Market Participant has not confirmed, in accordance with clause 7.7.6(b), that it will comply, or is deemed under clause 7.7.6A to have refused to comply, with a Dispatch Instruction.
- 7.6.1D. System Management may only issue Dispatch Instructions under: clause 7.6.1B(c) in priority to clause 7.6.1B(b), where;
- (a) System Management considers, on reasonable grounds, Market Participants will not be able to fully comply with Dispatch Instructions
- (b) System Management considers, on reasonable grounds, that it is required to do so for Power System Security and Reliability purposes

Proposed Revision to clarify the reduced extent obligations

7.7.6

- (b) a Market Participant must confirm receipt of the Dispatch Instruction or Operating Instruction and advise if it cannot fully comply with the Dispatch Instruction or Operating Instruction. If the Market Participant advises that it cannot fully comply, then it must also advise the reduced extent of
- (i) for a dispatch instruction given in 7.7.6(a) to increase its sent out generation or reduce its Demand Side Programme consumption
- (a) the ramp rate it will maintain of its sent out generation or consumption at, where this must be less than the ramp-rate in the Dispatch Instruction and greater than zero, and
- (b) the sent out generation target MW output or demand side consumption reduction, where this must be less than that in the target MW in the Dispatch Instruction and greater than or equal to its current sent out generation or consumption
- (ii) for a dispatch instruction given in 7.7.6(a) to decrease its sent out generation
- (a) the ramp rate it will maintain of its sent out generation at, where this must be greater than that in the ramp-rate in the Dispatch Instruction and greater than zero, and
- (b) the sent out generation target MW, where this must be greater than that in the target MW in the Dispatch Instruction and less than or equal to its current sent out generation

the Market Participant can comply with the Dispatch Instruction or Operating Instructions. The advice and confirmation under this clause 7.7.6(ba) must be made in the time and manner set out in the Power System Operation Procedure

7.10.3A

Where a Market Participant has advised System Management under clause 7.7.6(b) that it cannot fully comply with a Dispatch Instruction or an Operating Instruction and has also advised a ramp rate and target MW reduced extent to which it can comply, the Market Participant must comply with the Dispatch Instruction but only to that ramp rate and target MW reduced extent. A Market Participant's failure to fully comply with the Dispatch Instruction is not excused by this clause 7.10.3A.

Attachment B – Risk Register

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Rule # EIA Regs, Glossary

KF7:Generation component of net STEM shortfall

Extreme

EMERGENT

Reserve Capacity Mechanism fails ahead of realtime

Description

The risk relates to the removal of an enforceable obligation. There is no link between the morning submissions (completion of STEM), and the first balancing merit order. The proposed changes introduce the definition of Balancing Submission in the Glossary to the Rules. System Management believes this definition attempts to impose an obligation on participants to submit the correct values. However there is no penalty attached for not submitting the available capacity. In the absence of a settlement incentive or a civil penalty, SM questions how the IMO intends to enforce this obligation, which is central to the operation of the Reserve Capacity Mechanism.

Also, drafting appears extremely crude. The words "to the maximum" are unclear. System Management believes it should be a defined term - 'Maximum Supply Capability' is the standard way of defining this concept.

SM queries whether, given the risk and the value at stake, the IMO has given appropriate thought to the removal of this clause.

Resolution

An enforceable obligation to offer capacity to the market is a central feature of the RCM and is essential

7

Rule # 7A.1.13

KF5:Flexibility/efficiency

High

EMERGENT

As the IMO is aware, System Management's primary responsibility is to maintain the security of the power system. Discharging that responsibility requires both timely access to information and freedom to act where necessary. Description

MO determines a timeline not consistent with SM's information requirements for secure power system operation.

An operational risk arises when the IMO determines a timeframe that is not consistent with SM's requirements for real time operation of the Power System.

SM submits that the IMO seeks an authority that it is neither skilled, nor incentivised, to carry out in a manner that supports SM perform its functions under the Elec. Industry Act (2004)

Resolution

The amendments talk about timeframes "may be prescribed in a market procedure". This does not give any more certainty to SM that it will be provided with information that it requires for power system operation in the timeframes within which it is required.

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Rule # 7.6.1B

KF5:Flexibility/efficiency

Extreme

CLOSE PENDING

Non-Compliant dispatch process.

Dispatch criteria must be unambiguous and capable of being expressed in a series of closed logic statements. Programming can 'take into account' ramp rate limits, but cannot make a value judgement on "Standing Data Limitations". Likewise 'reasonable' and 'best' are subjective statements that cannot be translated into the dispatch algorithm.

Where generators (ie not just specifically LFAS providers) take automatic action (eg governor response) following a significant system event they are providing a benefit to system stability and should be rewarded. However, SM can not issue a Dispatch Instruction in advance or after the fact.

Resolution

Revised drafting included in rule change submission form. Close pending acceptance by IMO of redrafted criteria

Rule # 7.7.3(d)

KF8:System Management's authority

EMERGENT

SM can't dispatch SG's on islanded systems

Description

On occasion, SM will direct an islanded generator to look after frequency control. The Min MW instructions provides for a payment stream to that MP in settlements. Deletion of this part 7.7.3(d)ii, removes the payment stream and is therefore unfair.

SM recognises the sensitivity on this issue but in the absence of a practical alternative is unable to accept this amendment. At a high level, the process is relatively straightforward, System Management could document its application and the guidelines in a PSOP.

Whilst SM has the ability to direct, this reflects the risks on participants should they be required to perform frequency control services

Resolution

IMO has proposed SM use DSS contracts for this purpose. Estimated timeframe for delivery is late 2012 at the earliest for submission to the ERA for its approval, in the mean time participants have no mechanism to be paid

SYSTEM MANAGEMENT - RISK REGISTER RC_2011_10 - Comp. Bal and LFAS

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Rule # 2.36.10 (f)

KF5:Flexibility/efficiency

Extreme

CLOSE PENDING

SM breaches 2.36.10(f) (IMS Interface Document)

Description

The discretion sought by the IMO in this amendment would not be required if the rule change process retained the profile that it currently has. This rule appears to require systems be built to an amended spec, before that spec and the associated business process have been determined. SM submits that this amendment is neither prudent nor cost effective. No guidance or governance over the circumstances in which the IMO would exercise this discretion. Shared systems are likely to exist well into AR3, neither the IMO nor SM has the ability to dictate how these systems should be configured.

Resolution

Action with IMO, to investigate amendments to remove this clause which would address SM concerns

Rule # 7A.3.6

KF1:Increasing IPP Participation in Balancing

High

EMERGENT

SM cannot calculate the SOI, EOI quantities

Description

In relation to older facilities that do not have SCADA visibility clause 7A.3.6(a) should be amended to '(a) the SOI Quantity and the EOI Quantity for each Balancing Facility that is visible to the System Management SCADA'

Resolution

IMO have confirmed they will not be using meter data to provide these quantities. SM has no information to base these calculations on and therefore will incorporate a formulation SOI = EOI = RCOQ/2 into PSOP

Rule # 7.6.2AA(b)

KF1:Increasing IPP Participation in Balancing

Medium

EMERGENT

Previous day's BMO is not compatible with real time conditions

Description

Balancing Merit Order may be in specified circumstances "the most recent Forecast BMO provided for the same Trading Interval for the MR 7.6.2AA contemplates circumstances where the relevant Balancing Merit Order may not be available to the IMO. It provides that the previous day" (MR 7.6.2AA(d)). In these circumstances the Balancing Merit Order may be out of date and therefore the fairly rigid scheme in MR 7.6.1B and 7.6.1C will not be appropriate. Based on history of market system availability issues, it is almost certain that an interuption in data flow will occur within the first year of the new market.

The most recent BMO available is likely to be closer in terms of accuracy

Resolution

Risk likelihood downgraded to rare. (risk now medium)

Rule # 3.10.1

KF4:LFAS Market

High

CLOSE PENDING

SM unable to manage forecast risk in LFAS q's

Description

System Management will need additional LFAS under some circumstances (e.g. bad weather coming in; plant commissioning). It is unclear whether the proposed amendments provide for this.

Resolution

Close Pending contingent on IMO making amendment to 7B4.1(b) (SM reasonably considers)

RC_2011_10 - Comp. Bal and LFAS **SYSTEM MANAGEMENT - RISK REGISTER**

Rule # 7B.2.18 & 7B.2.19

KF4:LFAS Market

High

CLOSE PENDING

Short term LFAS shortfalls

The proposed amendment requires LFAS facilities to only advise the IMO if they are unable to meet requirements. The requirement then for the IMO to pass on this information "as soon as practicable" is not adequate for information needed for real-time management of the oower system.

The drafting is inconsistent with the IMO's design brief (http://www.imowa.com.au/f4768,1615220/20110804 - LFAS design.pdf) which states "at some time after LFAS Gate Closure the facility experienced a reduction in their ability to provide their LFAS Enablement Band (either partially or wholly), it would be the LFAS providers responsibility to inform SM (if the failure occurred during the 6 hour Selection Horizon)." (p4)

Resolution

Close pending, contingent on IMO making amendments discussed on 20111206

Rule # 7.5.7 Glossary

KF6:Surveillance and Compliance

Medium

EMERGENT

System Management must account for fuel decs in its Dispatch engine.

Description

standing data to be used in terms of ramp rate and max capacity. It is unclear as to whether System Management uses these quantities All clauses in regard to fuel declarations are no longer required as these are made to the IMO. If it is the capacity and rates given in the from the BMO/Ramp Rates or from the standing data when a fuel declaration is made (30 minutes hour prior to the start of the interval). Transparency - It is unclear as to what System Management is required to do with fuel declarations. Fuel declarations change the BMO then this must be removed to avoid ambiguity

ResolutionRisk stands IMO confirms this will not be deleted from rules.

Rule # 6.11.1

KF8:System Management's authority

High

CLOSE PENDING

SM is provided with comm/decom times too late

Description

Removing clause 6.11.1 (b)ii. will reduce System Management's ability to manage power system security. Some generating units have start-up times in excess of 16 hours and hence the loss of a few hours' notice of intended synchronisation is potentially significant

Resolution

Close Pending contingent on IMO, Reinstating clause 6.11.1 (b)ii.

Rule # 7.3.2. 7A.2.10

KF8:System Management's authority

High

EMERGENT

Plant trips after gate closure and has provided advice under 7.3.2 but not 7A.2.10.

Description

Clauses 7.3.1 and 7A.2.10 both affect the currency of the data System Management considers in real time dispatch and there is ambiguity between the two clauses. System Management needs to be able to take account of forced outage information when issuing dispatch instructions potentially in a shorter timeframe than is required to update a balancing submission. A situation where plant is declared to have reduced availability prior to formulation of final BMO must be able to be accounted for by SM.

(System Management would identify if we are using that power when we issue the disptach instruction and would immediately follow it with a second dispatch instruction with which the participant could comply).

Resolution

Unresolved.

Rule # 3.9.1(c)

High

EMERGENT

SM breaches rule 6.17.6(b) - DL's

The proposed change prevents dispatchable load from entering LFAS market if it determines it wants to do so - This proposed change states that a dispatchable load is unable to provide LFAS and may imply it may not be a Non-Balancing Facility It is not in accordance with market objective "1.2.1 (c). In the draft rule change report, IMO responded that it is not feasible to create a market design for a facility that does not exist. SM concurs and on that basis requests deletion of 6.17.6(b).

Resolution Still unresolved consequence downgraded by use of manual processing to meet requirements if DL should enter market

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Rule # 7A4.2

KF1:Increasing IPP Participation in Balancing

EMERGENT

SM does not meet 5 day requirement.

Description

Fall Back AS capabilities may be removed from the VE portfolio. The rules are not clear about how this situation would be resolved, but if it wasn't it could be a major threat to PSS. SM will need to manage this risk carefully in any case but recommends that it would be The decision itself will be reasonably straightforward, but if SM (for any reason) misses this deadline, the potential is a major part of our strongly advisable for the default response to reject rather than approve VE's

Resolution Risk downgraded by extending time and including Verve to provide AS. Still unresolved, no agreement reached.

Rule # 7.10.5

Description

High

EMERGENT

SM prevented from taking corrective action where a Generator is operating outside of tolerance.

Section 7.10.5 requires that where a Market Participant's Facility is operating outside its Tolerance Range, System Management must warn the Participant of the deviation and seek an explanation.

System Management believes this requirement is unworkable as in many cases, operation by a Participant outside the Tolerance Range will be the result of an incident resolution of which will be time-critical. In real time operations, it is not the explanation or the reason for the non-compliant operation that is important, it is the resolution of the issue System Management believes that the provision of reasonable tolerances provides generators the latitude to manage themselves without compliance being unduly onerous. SM could consider sending an automated communication to generators who are approaching the tolerance limit if that will provide comfort to Market Participants.

IMO has confirmed they will not make amendments. Risk stands.

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Rule # EIA Regs, Glossary

KF7:Generation component of net STEM shortfall

Extreme

EMERGENT

Reserve Capacity Mechanism fails in realtime (after balancing submission)

Description

The risk relates to the removal of real time compliance penalty. There is no compliance monitoring of real-time capacity. This was proposed to be achieved by a "Reserve Capacity or Operational Test". The proposed rules do not have this feature included.

Resolution The risk to system security of removing the Operational Test was not included in the original register.

Western Power Corporation 2012

Rule # 7A.3.2

KF2:Consistency between the balancing price and dispatch

EMERGENT

when BMO differs from physical dispatch due to non inclusion of facility restrictions

Description

infeasible. These two 'simplifications' risk generators being sent forecast that are materially different from the levels that they will actually Ramp rates and sync times will not be considered in the balancing forecast. This means that the balancing forecast may be physically be required to provide in real time leading to increased compliance risk and risks to system security. In addition it is unclear if the unavailability declarations are taken into account in the BMO

Resolution

Still unresolved.

Rule # 7.7.6(b)

194

KF8:System Management's authority

High

EMERGENT

Reduced extent dispatch capability threatens frequency control

Description

When a participant advises it can not meet a dispatch instruction It can advise it can do so to a "reduced extent". If a facility is asked to go up, it can advise it can go up to a lesser value. This is okay, however when it is asked to go down there is 2 interpretations, can it advise of a value below the dispatch quantity (reduced output) or can it advise of a value above the dispatch quantity (a reduced reduction)? This is particularly important for DI to below min gen level.

Resolution

Clarification of obligations in rule 7.7.6(b). A revised drafting is provided in draft rule change proposal submission form

Rule # appendix 1 standing data

Real time dispatch requires more and structured standing data to enable dispatch engine to function

Description

Standing Data does not allow accurate implementation of dispatch engine resulting in excessive out of merit generation

EMERGENT

Resolution

New rule that allow Standing data requirements are in a form that SM specifies in a PSOP to allow physical constraints (e.g. no go zones and start up profiles) to be modelled.

It is unclear which data is to be used, standing or balancing submission. Resulting in unclear obligations and system security risk

There is a conflict in the rules as to which data has priority standing data or balancing submissions

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Rule # 7.6.1B

Description

High

EMERGENT

Resolution

New rule to state that balancing submission overides standing data (ramp rate and max capacity) for the duration of the submission. Suggest new rule 7.6.1BA. System Management must deem the Balancing Merit Order and Forecast Balancing Merit Order information to constitute changes to standing data.

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Rule # 7A.3.14

The lack of participant data prevents accurate forecasts of non scheduled generation causing inaccurate price Inaccurate forecasts are made of intermittent generation because they are not required to give modelling data to SM. Description

Medium

EMERGENT

Resolution

New rule included to require intermittent (non-scheduled) generators > 10 MW to give SCADA stream to SM suggest 7A.3.14A A Non-scheduled Generator must provide System Management with the information specified in the Power System Operating procedure to support System Management's calculation of the quantity described in clause 7A.3.14