## RULE CHANGE EXTENSION NOTICE

## COMPETITIVE BALANCING AND LOAD FOLLOWING MARKET

## (RC_2011_10)

This notice is given under clause 2.5.7 of the Market Rules.

***Date Submitted:*** 23 September 2011

***Date Extended:*** 5 December 2011

***Submitter:*** Douglas Birnie, the Independent Market Operator (IMO)

### *THE PROPOSAL*

The proposal seeks to establish new Balancing and Load Following Ancillary Services markets. The proposed amendments have been developed following feedback from Market Participants and the findings of the Verve Energy Review which both identified concerns with the current sole-provider balancing and load following ancillary service arrangements under the Wholesale Electricity Market (WEM).These new proposed markets will enable competition in the provision of both services and thereby improve the efficiency of the WEM and address the concerns previously raised. The proposed amendments have been developed in consultation with Rules Development Implementation Working Group which was constituted under the auspices of the Market Advisory Committee.

Appendix 1 contains the Rule Change Proposal and gives complete information about:

- the proposed amendments to the Market Rules;
- relevant references to clauses of the Market Rules and any proposed specific amendments to those clauses; and
- the submitter's description of how the proposed amendments would allow the Market Rules to better address the Wholesale Market Objectives.

### *DECISION TO PROGRESS THE RULE CHANGE*

The IMO decided to progress the Rule Change Proposal on the basis that Rule Participants should be given an opportunity to provide submissions as part of the rule change process.

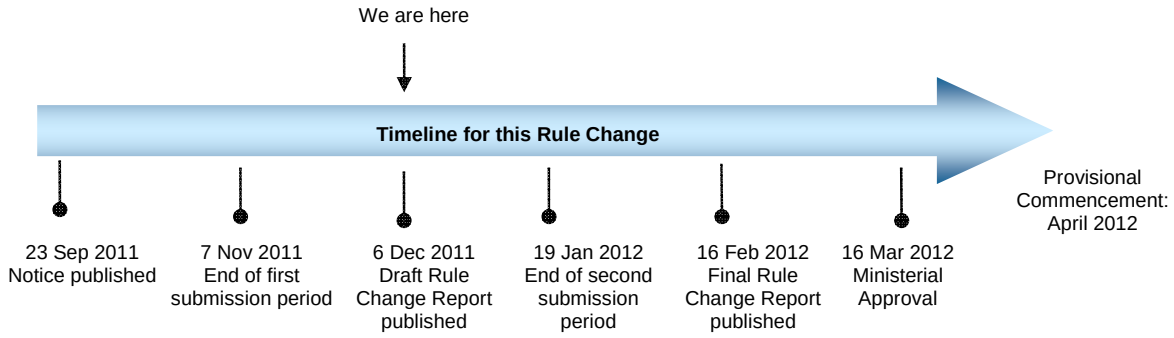
***Extension of publishing the Draft Rule Change Report (5 December 2011)***

The IMO extended the timeframe for publication of the Draft Rule Change Report for this Rule Change Proposal by one day, until 6 December 2011. This extension was in accordance with clause 2.5.10 of the Market Rules. A notice of this extension was published under clause 2.5.12 on the IMO website on 5 December 2011.

Note that this document remains unchanged from that originally published (23 September 2011) albeit reflecting the revised timelines in accordance with the notice of extension.

## *TIMELINE (as extended)*

The revised projected timelines for processing this proposal are:




Please note that the commencement date is provisional and may be subject to change in both the draft and final reports.

## *CALL FOR SUBMISSIONS*

***Please note that the first submission period has now closed.***

The IMO is seeking submissions regarding this proposal. The submission period is 30 Business Days from the publication date of this Rule Change Notice. Submissions must be delivered to the IMO by 5:00pm on **Monday 7 November 2011**.

The IMO prefers to receive submissions by email to market.development@imowa.com.au using the submission form available on the IMO website: http://www.imowa.com.au/rule-changes.

Submissions may also be sent to the IMO by fax or post, addressed to:

Independent Market Operator
Attn: General Manager, Development
PO Box 7096
Cloisters Square, Perth, WA 6850
Fax: (08) 9254 4399

# Appendix 1

## Wholesale Electricity Market
## Rule Change Proposal

## RC_2011_10: Competitive Balancing and Load Following Market

**Change Proposal No:** *RC_2011_10*
**Received Date:** *23 September 2011*

**Change requested by:**

| | |
|---|---|
| **Name:** | Douglas Birnie |
| **Phone:** | (08) 9254 4300 |
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| **Email:** | Douglas.Birnie@imowa.com.au |
| **Organisation:** | IMO |
| **Address:** | Level 3, Governor Stirling Tower, 197 St Georges Terrace |
| **Date submitted:** | 23 September |
| **Urgency:** | High |
| **Change Proposal title:** | Competitive Balancing and Load Following Market |
| **Market Rule(s) affected:** | **Numerous** |

### Introduction

Market Rule 2.5.1 of the Wholesale Electricity Market Rules provides that any person (including the IMO) may make a Rule Change Proposal by completing a Rule Change Proposal Form that must be submitted to the Independent Market Operator.

This Change Proposal can be posted, faxed or emailed to:

**Independent Market Operator**
Attn: Manager Market Development
PO Box 7096
Cloisters Square, Perth, WA 6850
Fax: (08) 9254 4339
Email: market.development@imowa.com.au

The Independent Market Operator will assess the proposal and, within 5 Business Days of receiving this Rule Change Proposal form, will notify you whether the Rule Change Proposal will be further progressed.

In order for the proposal to be progressed, all fields below must be completed and the change proposal must explain how it will enable the Market Rules to better contribute to the achievement of the wholesale electricity market objectives. The objectives of the market 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 that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;
(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.

## Details of the proposed Market Rule Change

### 1. Describe the concern with the existing Market Rules that is to be addressed by the proposed Market Rule change:

**Purpose**

The purpose of this Rule Change Proposal is to promote the economic efficiency of the Wholesale Electricity Market (WEM) by enabling greater Independent Power Producer (IPP) participation in the provision of balancing and the Load Following Ancillary Service (LFAS). This will be achieved via new market arrangements that will enable calculation of market-based prices for balancing and LFAS and will provide greater transparency of market information to improve the efficient operation of the WEM.

**Background**

Since the WEM was established in 2006, the opportunity for Market Participants to be engaged in the provision of energy beyond the Short Term Energy Market (STEM) has been limited. Verve Energy has had the role of default balancer, and the opportunity for IPPs to provide balancing energy has been restricted to occasions when Verve Energy runs out of non-liquid plant or when system security requirements cannot otherwise be maintained (as covered by clause 7.6 of the Market Rules).

In feedback gained during consultation undertaken by the Independent Market Operator (IMO), privately owned Market Participants expressed a need to improve the current balancing mechanism to allow the opportunity for IPPs to participate in the provision of balancing, while the current default balancer and others expressed concerns regarding the existing balancing pricing method. The Market Advisory Committee (MAC) was presented with a list of the issues of concern in relation to the WEM – and following a prioritisation

procedure – improving the balancing mechanism was identified as the top priority in August 2009[1].

The Verve Energy Review - commissioned by the Government to assess why Verve Energy was in a loss-making position - critiqued the market similarly[2]. It identified issues around the lack of competition in aspects of the market caused by the current market design.

**Development of this Rule Change Proposal**

Options for IPPs to participate in balancing, including alternative market design options were subsequently investigated by the Market Design Review Team (MDRT[3]). The IMO presented a range of options to stakeholders at workshops in May and June 2010[4]. In August 2010[5], the MAC's advice to the IMO Board was that initial development work should assume the retention of the current fundamental market design, evolving the design as far as practicable, prior to considering exploration of further market design options. The IMO Board agreed with the MAC's advice but noted that if sustainable solutions were not identified then it would ask for an assessment of more fundamental market re-design options.

The Rules Development Implementation Working Group (RDIWG[6]) was established by the MAC in August 2010 to consider how to to address a number of issues around balancing, reserve capacity refunds, operation of the STEM and ancillary services under the current desiign. The specific design issues and problems to be addressed by the RDIWG are available on the IMO website[7].

**Retention of the current market design**

This Rule Change Proposal has been developed through the RDIWG. It retains the current market design with Verve Energy continuing to be the default provider of ancillary services, and extends it as far as practical to require IPP participation in balancing and LFAS through price based competition. This avoids the cost and complexity of fundamental design changes and is consistent with longer term development options. It also provides opportunities for Verve Energy to separate facilities from its portfolio and bid them for balancing and LFAS on the same basis as IPPs.

Retention of the fundamental WEM design means:

- Bilateral contracts between Generators and Market Customers as the basis for commercial and physical participation in the WEM.

[1] Refer to the Market Rules Evolution Plan: www.imowa.com.au/market-rules
[2] Refer to www.**energy**.wa.gov.au/.../**Verve**%20**Energy**%20**Review**%20Final%20Report%20August%202...
[4] Refer to the following webpage for further details: http://www.imowa.com.au/design_review
[5] Refer to the MAC Meeting 11 August 2010 for further details.
[6] Refer to the following webpage for further details: http://www.imowa.com.au/RDIWG.
[7] Refer to the following webpage for further details: http://www.imowa.com.au/f139,1323967/RDIWG_market_Design_issues_problems.pdf

- Opportunities for Market Participants to adjust their bilateral positions through the STEM.
- Continuance of the System Management / Verve Energy relationship (portfolio based, gross dispatch).
- Energy supplied in the market determined by:
    - IPPs operating their facilities in accordance with Resource Plans, but subject to net dispatch by System Management; and
    - Verve Energy being dispatched on a portfolio basis.
- Verve Energy continuing to be the default provider of Ancillary Services (AS).

**Overview of Proposed Arrangements**

Under the proposed arrangements, Verve Energy will remain the default provider of ancillary services and System Management will continue to dispatch the Verve Energy portfolio as a service to Verve Energy. However, under the proposal, IPPs will be able to submit price based bids to compete with the Verve portfolio in balancing and LFAS markets. Following the existing STEM process:

- IPPs will submit Resource Plans, as now but indicating MW levels and ramping rates at which they will operate their scheduled generation facilities to meet their contractual positions.
- Verve Energy will submit a series of price-quantity pairs for each Trading Interval for its available capacity. I.e. a Portfolio Supply Curve (PSC) for each interval. PSCs will be along the lines of Verve's current STEM submissions but expressed in MW for dispatch purposes.
- IPPs will make facility Balancing Submissions for each Trading Interval indicating the MW quantities and prices at which they are prepared to be dispatched above or below the facility Resource Plan. It will be a requirement that all available capacity be included in balancing submissions, consistent with current requirements but with flexibility to split capacity across multiple price-quantity pairs.
- Verve Energy will be able to separate facilities from its portfolio, subject to IMO approval taking account of System Management's views, and operate them on a standalone basis, submitting facility resource plans and balancing submissions on the same basis as IPPs.
- Verve Energy will be required to make LFAS submissions covering the full quantity of LFAS required by System Management. IPPs, and Verve for standalone facilities, may make facility LFAS up and or/down submissions. LFAS submissions will indicate MW up and down capability and associated enablement prices.
- The IMO will rank LFAS submissions in price order and select for service the necessary quantity to meet overall LFAS requirements specified by System Management.

- The IMO will create a Balancing Merit Order, ranking balancing submission quantities in price order. In forming the Balancing Merit Order, the IMO will take into account any capacity affected by the selection of LFAS.
- The IMO will provide the Balancing Merit Order to System Management (without prices) for planning and dispatch purposes.
- The IMO will prepare forecasts of expected IPP facility/ Verve Energy Stand Alone Facilities (VSAF) and Verve Energy Portfolio dispatch and balancing market prices for each Trading Interval, and publish forecast quantities to the relevant Market Participant and market prices to all Market Participants. LFAS quantities and prices will be included in forecasts on the same basis.
- System Management will review forecast generation dispatch and the Balancing Merit Order, plan for expected dispatch and prepare and update the Verve Energy Dispatch Plan for meeting expected Verve Energy Portfolio quantities and LFAS requirements.
- Market Participants will have opportunities to review and update their balancing and LFAS submissions in light of market forecasts and their facility/ fuel status.
- The above cycle will iterate towards dispatch until gate closure when submissions are locked in, except for bona fide physical reasons (e.g. Forced Outages).
- In each Trading Interval, System Management will instruct accepted LFAS enablement MW bands and dispatch IPP/VSAF facilities and the Verve Energy Portfolio in accordance with the Balancing Merit Order unless it is necessary to deviate in order to ensure system security requirements are met.
- IPPs and Verve individual facilities (outside of its portfolio) will operate to dispatch instructions from System Management based on the BMO as far as practicable. IPPs will have less “certainty” over their actual dispatch than they do now – consistent with participating in the provision of balancing - although their bidding will have a substantial influence on whether they are dispatched or not, noting the proposal to lower the negative cap to -$1,000/MWh..
- The Balancing Price will be set from the final Balancing Merit Order and actual generation requirements. I.e. an ex post marginal price. Upward and downward LFAS prices will be set at the price of the marginal enablement tranches instructed by System Management.
- Variations from Net Contract Positions will be settled at the Balancing Price. There will be no DDAP/UDAP adjustments for IPP balancing payments so that IPPs will face actual balancing costs. Deviations as a result of not following dispatch instructions will be subject to sanction through the compliance regime.
- Market Participants will be eligible for constrained on or off compensation where quantity in a balancing submission is dispatched out of merit. For example if a quantity in a balancing submission with a price higher than the balancing price has been dispatched by System Management, the relevant Market Participant will be eligible for constrained on compensation at the price difference for the quantity involved.

A more detailed description of the new balancing and LFAS market arrangements can be found at *www.imowa.com.au/RDIWG/ New Balancing Market Proposal: Design Details*.

**Key areas of focus with the new arrangements**

This Rule Change Proposal addresses a number of concerns about the existing arrangements identified during consultation with Market Participants, the MAC and the Verve Energy Review. Particular areas of focus are as follows.

***Key focus 1: Increasing IPP Participation in Balancing***

This Rule Change Proposal enables all Market Generators to make price based submissions for balancing, update submissions in response to market forecasts and expected dispatch, and be dispatched with certainty about payments. It also provides opportunities for Verve Energy to move towards facility based bidding over time and be treated on the same basis as IPP facilities.

A range of options to facilitate increased IPP participation in balancing within the current hybrid market design were considered by the MRDT and subsequently shared with the RDIWG. This included contractual alternatives such as undertaking a second STEM run or multiple STEM style auctions. However, there was a strong preference for increasing participation in balancing through price based physical dispatch of balancing resources. A number of simpler options were also considered and discounted in favour of the proposed design. This included the possibility of the market facilitating balancing support contracts (BSCs) - given that the current Market Rules provide for System Management or Verve Energy to enter into a BSC but none have been since Market Start – and options suggested by a Market Participant and by System Management. None were considered to provide sufficient opportunity to enable IPPs to participate effectively in the provision of balancing as provided by the new market arrangements proposed in this paper.

***Key focus 2: Consistency between the balancing price and dispatch***

At present, the balancing price (MCAP) for each Trading Interval is established from participants' STEM supply submissions, ranked in price order, and the actual level of supply and demand in the interval. There are a number of limitations with this approach. For example:

- The pricing curve includes all STEM supply submissions whereas at present Verve Energy is the default balancer and IPPs are generally not dispatched off resource plans. MCAP is therefore often inconsistent with dispatch and the cost of/ need for balancing.
- The aggregate quantity used to calculate MCAP (i.e. to determine the intersection with the MCAP price curve) includes some quantities which are not part of STEM submissions. This tends to result in MCAP being higher than it would be otherwise.

The above effects have been investigated in some detail. For example, see RDIWG meeting 5 papers[8].

This Rule Change Proposal addresses these issues by retaining the concept of marginal pricing but with IPPs able to compete on price for dispatch and the market setting a clean price reflecting actual dispatch outcomes to the extent practical. The methodology is explained in more detail in Appendix One.

A clean balancing price will more accurately signal the need for and value of balancing support/ supply flexibility. This will assist in addressing concerns over the need for increasing flexibility, for example overnight in low load/ high wind scenarios, and in providing longer term signals to generation investors about the need for and value of flexibility in the WEM.

Where differences between the balancing price and actual dispatch do occur, Market Participants will not be financially disadvantaged if they were following dispatch instructions. This will be achieved through constrained on or off compensation. This can occur if a Market Participant has been dispatched out of merit to satisfy system security requirements or because pricing is set on a half hourly basis and dispatch is a real time activity.

### *Key focus 3: The role of DDAP and UDAP*

The existing Downwards Deviation Administration Price (DDAP) and Upwards Deviation Administrative Price (UDAP) penalties are intended to incentivise compliance with Resource Plans. However, this means that Market Participants are not exposed to actual balancing costs (even if a clean balancing price is introduced) and are exposed to the same penalties whether the balancing requirement arose through unavoidable circumstances or inappropriate behaviour. Incentives to avoid the risk of DDAP and UDAP penalties can also create distortions through conservative behaviour (for example, bringing a facility into service before it is actually needed) which could cause difficulties for system security.

Under this Rule Change Proposal, the removal of DDAP and UDAP and calculation of a clean price will mean that Market Participants face the marginal costs of balancing and it will be the responsibility of the compliance regime to target inappropriate behaviour with sanctions determined on a case by case basis.

### *Key focus 4: LFAS Market*

Full LFAS requirements are currently provided by Verve Energy under an administered pricing regime[9]. The proposal provides opportunities for IPPs to compete with Verve Energy to supply LFAS requirements and sets market based LFAS prices.

As for balancing, Market Participants will be able to revise LFAS submissions in response to market forecasts/ conditions, trading off balancing and LFAS costs where capacity is mutually exclusive and adjusting relevant submissions accordingly. Final balancing submissions are able to be made after LFAS selections. Providing forecasts and flexibility to Market Participants means that the LFAS selection process will be relatively straightforward,

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8 http://www.imowa.com.au/f139,1324064/Combined_RDIWG_Mtg_5_Papers.pdf

9 Margin peak and off peak pricing based on estimated opportunity costs.

based on LFAS prices only, compared to market-based co-optimisation methods which select balancing and LFAS simultaneously (although in time more complex methods/ systems could be introduced).

Verve Energy will remain the default LFAS provider as it is likely, at least initially, that alternatives will be limited relative to overall requirements. As default provider Verve Energy will also submit a price for providing back-up LFAS in the event of a facility failure.

***Key focus 5: Flexibility/efficiency***

The current MCAP pricing curve is established approximately 24 hours before the Trading Day starts and 48 hours before it ends. Uncertainties over this time frame compound the inconsistencies between pricing and dispatch noted above. For example, Verve Energy submits its supply curve before Market Participants' net contract positions and IPP Resource Plans are confirmed; demand and intermittent generation can vary significantly from day-ahead forecasts; Forced Outages can occur.

Further, opportunities to respond to changing market requirements (e.g. due to changing demand and wind forecasts, Forced Outages etc) and/ or to vary from contractual positions where economically viable, are currently limited.

STEM is a one shot contractual process. Its efficiency is limited because Market Participants risk being locked into contractual positions which they may not be able to match efficiently or even feasibly with Resource Plans. For example: due to risks of being cleared, or not, in consecutive Trading Intervals.

This Rule Change Proposal addresses these issues by:

- Breaking the direct link between STEM submissions and balancing/ dispatch (except for settlement quantities);
- Enabling all Market Generators to participate in the balancing and LFAS markets and to make initial submissions after STEM outcomes are known;
- Providing regular balancing and LFAS market forecasts to Market Participants; and
- Enabling Market Participants to update their submissions in response to market forecasts and/or changes in their own circumstances, including interactions between balancing and LFAS selections.

***Key focus 6: Surveillance and Compliance***

As noted above in relation to the removal of DDAP and UDAP, there will be a stronger emphasis on compliance monitoring to detect and sanction inappropriate behaviour. This philosophy is reflected through the proposed amendments and will require a more proactive approach to compliance. For example, the proposed Amending Rules impose obligations of acting in good faith on Market Participants. Accordingly, the IMO plans to expand its compliance team, with a greater emphasis on data analysis including automated monitoring of participant activity.

An important focus of compliance monitoring will be to identify behaviour that attempts to manipulate the accuracy of the market forecasts which Market Participants will rely on to make decisions. For example, IMO scrutiny could be triggered by significant changes in bidding behaviour, especially closer to gate closure, late declarations of Forced Outages or inability to follow dispatch instructions.

***Key focus 7: Generation component of net STEM shortfall***

At present, a facility which operates below its Resource Plan level by more than its settlement tolerance (of 3 percent) is exposed to Net STEM Shortfall payments for any shortfall relative to its full accredited capacity irrespective of the cause. This has the potential to overstate the impact and/or distort Market Participant decisions. On the other hand, it is important to know that capacity receiving Capacity Credits is actually available if needed.

Under this Rule Change Proposal, this 'generation level' component of the Net STEM Shortfall calculation will be removed. Instead if a facility is considered by the IMO to be at risk of not meeting its physical obligations in relation to the WEM, then the IMO may request it to undertake a test to ascertain whether it is indeed meeting its obligations if it is not satisfied with the Market Participant's responses to questioning.

***Key focus 8: System Management's authority***

This Rule Change Proposal preserves System Management's authority for coordinating system security, including intervention if necessary to avoid the system entering a high risk state. All capacity will continue to be available to System Management for dispatch but with increased flexibility through opportunities for economic dispatch of IPPs via the Balancing Merit Order. Market Participants' ability to update Balancing Submissions will however be limited initially by a facility Gate Closure of a greater number of hours.

***Key focus 9: Confidentiality provisions***

Given the increasing importance of market-related information to the operation of the balancing market in particular, the opportunity has also been taken to propose a rationalisation of the current confidentiality-related treatment of market information in Chapter 10 of the Market Rules.

Currently there are several classifications in relation to the treatment of information and its confidentiality. The proposed amendments seek to simplify these classifications and to

establish a default preference for the transparency of information unless the IMO – following consultation – deems confidentiality in a particular circumstance is justified. The proposed amendments set out the IMO's decision making rights, its obligation to consult before deeming certain information to be confidential, the rights of those who have access to the confidential information, and to specify certain information that must be made available. Better transparency of information will be a critical factor in the efficient operation of the balancing market in particular but will also provide benefits to the operation of the STEM and LFAS markets.

***Supplementary focus: Additional changes***

Given the extent of the changes proposed to the Market Rules, the opportunity has also been taken to:

- Address a number of minor and typographical errors identified in the course of reviewing the Market Rules for the balancing and LFAS market and new confidentiality arrangements;
- Adopt a more output/outcome based approach in the drafting of the proposed Amending Rules to remove unnecessary prescription and complexity and encourage alternatives/innovation where this is appropriate.

The IMO considers that these changes will improve the effectiveness and efficiency of the operation of the Market Rules.

***Civil penalty clauses, reviewable decisions and protected provisions***

A number of changes are proposed to the civil penalty provisions, reviewable and protected provisions. The IMO is proposing to have the following changes reflected in the list of civil penalty provisions in the Electricity Industry (Wholesale Electricity Market) Regulations 2004:

| **PROVISION TYPE** | **CLAUSE** | **PENALTY** | | |
|---|---|---|---|---|
| **Civil Penalty** | | **Category** | **1st Breach** | **Subsequent breaches** |
| New civil penalty and related clause | 2.13.13A | C | $50,000 | $100,000 |
| | 7.10.3A | C | $50,000 | $100,000 |
| | 7A.2.8 | C | $50,000 | $100,000 |
| | 7A.2.9 | C | $50,000 | $100,000 |
| | 7A.2.13 | C | $50,000 | $100,000 |
| | 7A.2.16 | C | $50,000 | $100,000 |
| | 7B.2.10 | C | $50,000 | $100,000 |
| | 7B.2.13 | C | $50,000 | $100,000 |
| | | | | |
| Existing civil penalty clause with only wording to be amended | 3.11.7A | C | $50,000 | $100,000 |

| | | | | |
|---|---|---|---|---|
| | 7.7.9(b) | C | $30,000 | $60,000 |
| | 7.9.1 | C | $30,000 | $60,000 |
| | 7.10.1 | C | $50,000 | $100,000 |
| | 7.10.3 | C | $30,000 | $60,000 |
| | 7.10.6 (refers to amended clause 7.10.5) | C | $35,000 | $70,000 |
| | 7.10.6A | C | $30,000 | $60,000 |
| | | | | |

The following clauses are proposed to be reviewable decisions: 2.10.2A, 2.34.7A, 2.34.7A(c), 2.34.7C, 7A.1.8(iii) and the existing reviewable decision in 10.2.1 amended.

The following clauses are proposed to be protected provisions: 2.10.1A, 2.10.17, 2.10.18, 2.10.19, and 2.13.13A and the existing protected provision clauses to be amended: 2.1.2, 2.16.2, 2.16.4, 2.16.7, 2.16.9, 2.16.9A, 2.16.9B, 2.16.12, 10.2.1, and 10.4.1.

The IMO seeks feedback on these changes from Market Participants as part of this Rule Change proposal.

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## 2. Explain the reason for the degree of urgency:

The IMO proposes that the Rule Change Proposal be progressed via the Standard Rule Change Process.

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## 3. Provide any proposed specific changes to particular Rules: (for clarity, please use the current wording of the Rules and place a ~~strikethrough~~ where words are deleted and underline words added)

See the Attachment.

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## 4. Describe how the proposed Market Rule changes would allow the Market Rules to better address the Wholesale Market Objectives:

The IMO considers the proposed changes will have the following impact on the Wholesale Market Objectives:

| Impact | Market Objectives |
|---|---|
| Allow the Market Rules to better address the objective. | a, b, c, d |
| Consistent with objective. | e |
| Inconsistent with objective. | |

**Impact on Market Objective (a)**

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|---|
| *to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;* |

The new balancing and LFAS market proposal will enable more facilities to be made available for balancing and LFAS, reducing overall dispatch costs and enhancing system flexibility and security.

The balancing and LFAS market proposal preserves System Management's rights and obligations in relation to system security, including intervention if necessary to avoid the system entering a high risk state.

The new confidentiality provisions will improve the effectiveness of the operation of the balancing, LFAS and STEM markets by providing greater information to Market Participants upon which they can prepare bids, for example, than would otherwise be the case.

**Impact on Market Objective (b)**

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|---|
| *to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors;* |

The balancing and LFAS market proposal will enable IPPs to compete with Verve Energy in the balancing and LFAS markets.

The balancing and LFAS market proposal is likely to make the overall market more attractive to new entrants through:

- More opportunity to participate in balancing and LFAS, without financial disadvantage if dispatched out of merit (for any reason).
- Increased ability to manage exposures to balancing and potentially inefficient STEM/ Resource Plan outcomes.

The balancing and LFAS market proposal and new confidentiality provisions should also likely make the overall market more attractive to new entrants through increased transparency and availability of market information.

By more accurately signalling the need for and value of balancing, the proposal should promote efficient investment (e.g. in relation to the need for and value of flexibility).

**Impact on Market Objective (c)**

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

The balancing and LFAS market proposal and new confidentiality arrangements will create a more level playing field for all generation options and technologies by more clearly signalling the value and cost of balancing and LFAS and system flexibility requirements.

While demand side management technologies will not be able to bid into the market (at least in its initial phase) given the desire to minimise the complexity of the initial balancing market arrangements, demand-side responses will be able to influence balancing quantities and prices.

**Impact on Market Objective (d)**

| |
|---|
| *to minimise the long-term cost of electricity supplied to customers from the South West interconnected system* |

By increasing transparency of information and competition between Market Generators in the balancing and LFAS markets, the balancing and LFAS market proposal and new confidentiality arrangements are likely to drive down balancing and LFAS costs in the short to medium term.

In the longer term, clean cost reflective prices should help to minimise overall system costs by encouraging participants to factor the value of flexibility and/or their actual cost impacts into their investment decisions.

**Impact on Market Objective (e)**

| |
|---|
| *to encourage the taking of measures to manage the amount of electricity used and when it is used.* |

The balancing and LFAS market proposal and new confidentiality arrangements may indirectly assist this Market Objective. Providing regular market price forecasts to market customers may facilitate more active demand side response. To the extent this occurs, more cost reflective balancing prices will lead to more efficient trade-offs.

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## 5. Provide any identifiable costs and benefits of the change:

The IMO commissioned the Sapere Research Group (Sapere) to undertake an independent study of the likely costs and benefits of the balancing market proposal earlier this year based on estimates at that time. The study, led by Kieran Murray, quantified a small number of direct benefits of the proposal and compared these benefits with the estimated costs of implementing and operating the proposed arrangements. Estimates were based on optimistic, medium and pessimistic scenarios and were tested for sensitivity to variations in key assumptions. Personnel and systems cost estimates, establishment and ongoing, for all

stakeholders were established in consultation with the IMO, System Management and participants. (Note: The costs and benefits of the LFAS market proposal were not separately identified as there was general agreement that both the balancing and LFAS markets should be developed (but not necessarily implemented) as a package and the balancing components represented the most significant components of that package.)

Key conclusions from the study that was finished in April were that:

- The proposal would yield net benefits to the economy ranging from $16.8m in the optimistic scenario to $ 2.1m in the pessimistic scenario;

**Table 1: Summary of Sapere Benefit-Cost Study**

| | High | Medium | Low |
|---|---|---|---|
| Direct Benefits | $32.48m | $27.92m | $24.92m |
| Costs | $15.72m | $19.27m | $22.83m |
| Net Benefits | $16.76m | $8.65m | $2.09m |
| Payback | 2.07 | 1.45 | 1.09 |

- Net positive benefits would occur under all but extreme scenarios (e.g. reducing the study horizon from 7 to just 3 years or increasing the discount rate to 33%);

- Actual net benefits are likely to be greater, and may be more significant, than the direct benefits quantified, for example over a longer time-frame and/or indirect benefits (e.g. investment incentives, confidence levels, longer-term transitional impacts and price signalling impacts).

The full Sapere report is available at http://www.imowa.com.au/MAC_37. Since that time there has been some change in the forecast costs (eg for SM system upgrades) but these are not considered to be so material as to alter the conclusions of the CBA (while the costs have risen so will have some of the benefits).

There are few material costs arising from the change in the confidentiality provisions and these seem likely to be welfare enhancing as more accurate information will likely improve biding behaviour in the STEM, and new balancing and LFAS markets over time.