

# Draft Rule Change Report Title: Competitive Balancing and Load Following Market

RC\_2011\_10

**Standard Rule Change Process** 

Date: 6 December 2011

#### **CONTENTS**

1.	RULE	CHA	NGE	PROC	ESS	AND	TIME	TABL	.E								 	6
2.	CALL	. FOR	SEC	OND R	ROUN	D SI	JBMIS	SSION	S								 ,(	6
3.	3.1	The F	Rule C	hange	Prop	osal											 	6
4.	4.1 4.2	The N Subm The II	Market nission MO's i	Advis s rece respor	ory C eived nse to	comn durir sub	nittee . ng the missic	first su	 ubmis ceived	sion pe	eriod	first s	ubmi	issio	n perio	 d	 	7 8 4
5.	5.1 5.2	Additi Whole	ional <i>l</i> esale	Amenc Marke	dment et Obje	s to	the An	nendin	ıg Ru	les							 19	5 9
6.	<b>THE I</b> 6.1																	
APPE	NDIX	1:													ANGES		2	5
APPE	ENDIX	2:	ADDI	TION	AL CH	HAN	GES T	о тн	E AM	ENDIN	IG R	ULES					 11	1
ΔΡΡΕ	NDIX	3.	PROF	OSF	р АМ	FND	ING R	RUI FS									14	1

#### **Independent Market Operator**

Level 3, Governor Stirling Tower 197 St George's Terrace, Perth WA 6000 PO Box 7096, Cloisters Square, Perth WA 6850

Tel. (08) 9254 4300

Email: <a href="mailto:imo@imowa.com.au">imo@imowa.com.au</a>
Website: <a href="mailto:www.imowa.com.au">www.imowa.com.au</a>

#### **EXECUTIVE SUMMARY**

#### **Proposed Amendments**

The Rule Change Proposal seeks to establish new Balancing and Load Following Ancillary Services (LFAS) markets. These new proposed markets will enable competition in the provision of both services and thereby improve the efficiency of the Wholesale Electricity Market (WEM).

The Rule Change Proposal is consistent with the Market Advisory Committee's (MAC's) recommendation to the IMO Board to retain the current hybrid market design, evolving this as far as practical.

The new market arrangements will enable calculation of market-based prices for Balancing and LFAS and will provide enhanced transparency of market information to improve the efficient operation of the WEM.

The Rule Change Proposal seeks to resolve a number of issues including:

- The limited opportunity for Market Participants, other than Verve Energy to provide Balancing and LFAS inevitably means that the cost of these services is higher than it needs to be,
- provisions for Balancing Support Contracts have not been effective to date,
- the calculation of Marginal Cost Administered Price (MCAP) and the role of Upward and Downward Deviation Administered Prices (UDAP and DDAP) mean balancing prices are not cost reflective and leads to inefficient incentives for operational and investment decisions and inequitable financial transfers between participants that compromise the integrity of the WEM; and
- The current day-ahead Short Term Energy Market (STEM) and the lack of clear forward price signals provide only limited opportunity for Market Participants to efficiently manage their operational risks.

The proposed amendments have been developed in consultation with the Rules Development Implementation Working Group (RDIWG) which was constituted under the auspices of the Market Advisory Committee (MAC).

#### Consultation

The Rule Change Proposal reflects a substantial level of consultation with the industry.

The initial work to evaluate the appropriate evolutionary pathway for the WEM was conducted under the Market Rules Design Team (formed under the Oates Review) that was tasked with recommending market design changes as a result of the outcomes in the Verve Energy Review (Oates Review). The Pathway decision was represented to the MAC in July 2010.

The IMO established the Market Evolution Program (MEP) in response to the Pathway decision. The MEP included the establishment of a competitive Balancing and LFAS market.

The RDIWG was formed to assist the IMO with the MEP and with this Rule Change Proposal.

What followed was a series of RDIWG meetings, industry workshops and numerous one on one stakeholder briefings spanning 11 months that discussed in detail the design of the new Balancing and LFAS markets.

A Pre Rule Change Proposal was presented to the MAC in the September 2011 meeting.

The IMO formally submitted the Rule Change Proposal on 23 September 2011. The IMO issued a notice calling for submissions on 23 September 2011.

Submissions were received from Alinta, Collgar Wind Farm, Landfill Gas and Power, Perth Energy, System Management, Synergy and Verve Energy. Submissions generally support the proposal and no submissions opposed the proposal.

#### Assessment against Wholesale Market Objectives

The IMO has found that the proposed amendments will better facilitate the achievement of all the Wholesale Market Objectives (a), (b), (c), (d) and (e).

#### Practicality and Cost of Implementation

The IMO commissioned the Sapere Research Group to undertake an independent high level Cost Benefit Analysis (CBA) on the introduction of competition into the provision of balancing services in WEM. The CBA report provided an assessment of the benefits and costs of allowing Market Participants in the WEM to provide balancing services in a competitive market.

The CBA study highlighted four quantifiable and direct benefits of introducing a competitive Balancing market. They were assessed to be:

- an ability for Independent Power Producers (IPP's) to bid in a lower cost balancing capacity;
- an increase in the bidding of capacity that allows Market Participants to recast their balancing submissions based on new market information;
- the more efficient return of capacity from outages; and
- fewer curtailments of base load generation.

In addition to the quantifiable and direct benefits, the study noted other effects that were difficult to quantify, that maybe beneficial to the WEM. These included incentives for investment, confidence levels, longer-term transitional impacts and price signalling impacts.

The costs included in the CBA study were provided by the IMO, System Management and Market Participants.

The CBA study concluded that the introduction of a competitive Balancing market would result in positive net benefits. The estimate of net benefits highlighted in the study ranged from \$2.1 million (at the lower end) to \$16.8 million (at the upper end).

The CBA study concluded that the introduction of a competitive Balancing market will result in net benefits to Western Australia.

Sapere has subsequently confirmed positive net benefits taking account System Management's significantly increased cost estimates<sup>1</sup>.

The full report can be found here: http://www.imowa.com.au/MAC 37.

The IMO considers that the proposed rule amendments, with the modifications included in this draft Rule Change Report, are practical and that costs will fall within the ranges assumed in the Sapere cost benefit study and Sapere's subsequent briefing regarding System Management's revised cost estimates.

The 1 April 2012 go live date was set in consultation with Market Participants and System Management. The IMO notes some concerns with regard to the timeframes and is committed to working with stakeholders in this regard.

#### The IMO Board's Proposed Decision

The IMO Board's proposed decision is to implement the Rule Change Proposal in the form outlined in Section 7 of this report.

#### Next steps

The IMO invites interested stakeholders to make submissions on this Draft Rule Change Report by **5.00pm**, **Thursday 19 January 2012**. The second submission period is for 29 Business days (rather than the standard duration of 20 Business days) in order to accommodate for the Christmas and New Year period.

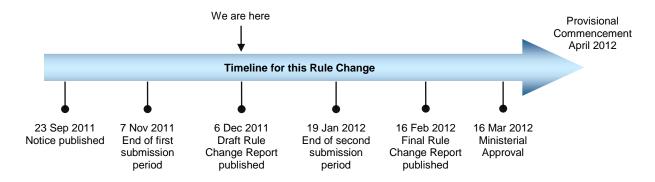
http://www.imowa.com.au/f139,1751340/Note on CBA re SM costs 23 Sept.pdf

#### 1. RULE CHANGE PROCESS AND TIMETABLE

On 23 September 2011 the IMO submitted a Rule Change Proposal regarding amendments to numerous clauses of the Wholesale Electricity Market Rules (Market Rules).

This proposal is being processed using the Standard Rule Change Process, described in section 2.7 of the Market Rules.

The key dates in processing this Rule Change Proposal are:



Please note the commencement date is provisional and may be subject to change in the Final Rule Change Report.

#### 2. CALL FOR SECOND ROUND SUBMISSIONS

The IMO invites interested stakeholders to make submissions on this Draft Rule Change Report. The submission period is 30 Business Days from the publication date of this report. Submissions must be delivered to the IMO by **5.00pm**, **Thursday 19 January 2012**.

The IMO prefers to receive submissions by email (using the submission form available on the IMO website: <a href="http://www.imowa.com.au/rule-changes">http://www.imowa.com.au/rule-changes</a>) to: <a href="market.development@imowa.com.au">market.development@imowa.com.au</a>

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

#### **Independent Market Operator**

Attn: Group Manager, Market Development

PO Box 7096

Cloisters Square, PERTH, WA 6850

Fax: (08) 9254 4399

#### 3. PROPOSED AMENDMENTS

#### 3.1 The Rule Change Proposal

The IMO proposed a number of amendments to the Market Rules 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). 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. Under the proposed amendments IPPs will be

able to make price-based Balancing and LFAS submissions for their facilities to compete with the Verve Energy portfolio in the proposed Balancing and LFAS markets. Verve Energy will also be able to separate facilities from its portfolio and operate them as standalone facilities on the same basis as IPP facilities.

The Rule Change Proposal addresses a number of concerns with the existing Balancing market and LFAS markets by:

- increasing IPP participation in balancing;
- ensuring consistency between the balancing price and dispatch;
- removing the Downwards Deviation Administration Price (DDAP) and Upwards Deviation Administrative Price (UDAP);
- enabling IPPs to compete with Verve Energy to provide LFAS;
- removing the 'generation level' component of the Net STEM Shortfall calculation;
- placing a stronger emphasis on surveillance and compliance; and

The proposal also incorporates a number of minor and typographical errors to improve the overall integrity of the Amending Rules.

The proposal continues to preserve System Management's authority for coordinating system security which has been a key principle of the Market from the beginning. As highlighted in Key Focus Area 8, 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.

For full details of the Rule Change Proposal please refer to the IMO Website: http://www.//imowa.com.au/ RC\_2011\_10

#### 3.2 The IMO's Initial Assessment of the Proposal

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

#### 4. CONSULTATION

#### 4.1 The Market Advisory Committee

At the 19 July 2010 Market Advisory Committee (MAC) meeting the Market Rules Design Team (MRDT) presented the following pathways for the further development of the current Wholesale Electricity Market (WEM) design:

- Pathway 1: Enhancement of the current market design to push it as far as practical;
- Pathway 2: Transitional enhancements to the current market design while an evaluation is conducted of the costs and benefits of adopting a fully contestable gross or net dispatch market design is implemented; or
- Pathway 3: Moving straight a fully contestable market design as soon as practicable.

At the meeting the MAC expressed a preference to maximise the development of the current hybrid structure of the market. Following this decision, the Rules Development Implementation Working Group (RDIWG) was established under clause 2.3.17 by the MAC in August 2010 to consider how to address a number of issues around balancing, reserve capacity refunds, operation of the STEM and ancillary services under the current market design.

The composition of RDIWG was developed to ensure a wide stakeholder representation and included personnel (appointed on an individual basis) from the following Rule Participants:

- Alinta
- APA Group
- Economic Regulatory Authority (ERA)
- ERM Power
- IMO
- Verve Energy

- Landfill Gas and Power
- Office of Energy
- Perth Energy
- Synergy
- System Management

The RDIWG held seventeen meetings (to September 2011) during the process leading up to the development of the detailed design for the proposed new balancing and LFAS markets. Following the deliberations of the RDIWG, along with considerable consultation with wider industry, details of the proposed new market design were specified in the Pre Rule Change Discussion Paper that was presented at the September 2011 MAC meeting.

During the September meeting, the MAC was generally supportive of the new Balancing and LFAS market proposal. The MAC requested further information regarding the briefing note produced by Sapere (and sent to MAC members on 23 September 2011) on the overall impacts of the Cost Benefit Analysis (CBA) looking at additional costs under the high and low cost assumptions. The Chair noted that the advice provided by the Sapere Research group was that although the costs to be taken into account have increased by thirty seven percent, the resultant conclusion from any revision to the CBA remains in favour of the proposed Rule Change Proposal.

Further details are available in the MAC meeting minutes available on the IMO website: http://www.imowa.com.au/MAC

Full details of the RDIWG meetings and a copy of the briefing note from Sapere Research Group are available on the IMO website: <a href="http://www.imowa.com.au/RDIWG">http://www.imowa.com.au/RDIWG</a>

#### 4.2 Submissions received during the first submission period

The first submission period for this Rule Change Proposal was between 26 September 2011 and 7 November 2011.

The IMO received submissions from the following parties:

Alinta

System Management

Collgar Wind Farm

Synergy

Landfill Gas and Power

Verve Energy

Perth Energy

The following is a summary of the key points noted in submissions:

- submitters generally supported the proposal and considered that it will better facilitate the achievement of the Wholesale Market Objectives;
- no submitters opposed the proposal although a number of detailed matters were raised;
- some submitters raised concerns about potential costs they may face as a consequence of mandatory participation in the Balancing Market;
- Verve Energy expressed concern that when bidding as a portfolio it will not have the same rebidding flexibility as IPPs;
- System Management raised concerns with compliance, removal of the generation component of the Net STEM Shortfall and aspects relating to dispatch and system security requirements; and
- some submitters raised concerns about the proposed rationalisation in Chapter 10 regarding the treatment of market information with respect to confidentiality.

A number of drafting issues were identified by submitting parties along with suggestions for drafting improvements.

All copy of all submissions in full is available on the IMO website<sup>2</sup>.

Submitters' assessments as to whether the proposal would better achieve the Wholesale Market Objectives are set out in Table 1.

Submitters' views on the costs and practicality of the proposed changes and the timeframe for implementation are set out in Table 2.

<sup>&</sup>lt;sup>2</sup> For further details refer to the following webpage: <a href="http://www.imowa.com.au/n4799.html">http://www.imowa.com.au/n4799.html</a>

Table 1: Summary of Submitters' Assessment Against the Wholesale Market Objectives

Submitter	Assessment
Alinta	None provided
Collgar Wind Farm	Collgar believes that the Rule Change Proposal will operate to better facilitate the achievement of Market Objective (b).
Landfill Gas and Power (LGP)	LGP supports the IMO's assessment of the impact on the Market Objectives. In particular, LGP notes that the core proposals deliver price-driven markets with broad participation in the provision of energy and load following. The proposals also remove structures that have unnecessarily inhibited flexible integration of the various generator classes, and thereby increased costs.
	Market Objective (a): Balancing and Load-Following prices will be made more efficient and transparent by the creation of competitive markets that facilitate participation by all generators.
	Market Objective (b): The new markets will replace the current regulated mechanisms supplied by Verve Energy, and will be price-driven, transparent, and open to all generators. New participants will be encouraged by the transparency and regulatory oversight of the obligation to participate at the notional SRMC.
	Market Objective (c): The new markets will make transparent the consequences of intermittent technologies and provide lowest-cost accommodation of their intermittency. They will also protect Verve Energy from 'uncompensated' turn-down of must-run plant.
	Market Objective (d): In addition to the participation of IPPs in the new markets, all participants will be obligated to offer at the notional SRMC.
	Market Objective (e): The provision of near real-time prices and price forecasts will provide a signal for optimal consumption.
Perth Energy	Perth Energy considers the Rule Change Proposal would positively impact on the achievement of Market Objectives (a), (b) and (d) with no detrimental impacts on the remaining Market Objectives.
	Market Objective (a): Perth Energy considers the main beneficial impact of the Rule Change Proposal will be that it will specifically allow all IPP Facilities to participate in the provision of balancing and load following services, and for the system to secure such services in the most cost effective and efficient manner. Many of the current IPP facilities have characteristics that make them suitable for providing such services and in many instances these facilities will be more efficient at providing services compared to some of the more marginal units in Verve Energy's portfolio. With the proposed changes System Management will no longer be forced to use less efficient Verve Energy units when an IPP facility is available to provide balancing or load following services cheaper and more efficiently. This will lead to a more efficient economic outcome for system balancing with a positive impact for Market Objective (a).
	Market Objective (b): Allowing IPP Facilities to compete for services that they are currently not allowed to compete for will obviously widen the pool of Facilities available to System Management for these services with an immediate positive impact on competition in the market and therefore Market Objective (b).

	Market Objective (d): Increased competition and efficiencies will in Perth Energy's view likely positively impact on the long term cost of producing electricity. In addition, the increased ability of participants to mitigate certain risks by adjusting positions closer to real time is also likely to lower the overall risk of participating in the WEM. This should over time lead to savings both in direct risk related costs as well as costs related to obtaining funding for projects in the WEM. Perth Energy considers all of these factors are likely to positively impact on the achievement of Market Objective (d).
System Management	Unable to provide an assessment until the Market and Power System Operating Procedures have been drafted.
Synergy	None provided.
Verve Energy	None provided.

Table 2: Summary of Submitters' Views on Costs, Practicality and Timeframes

Submitter	Costs and Practicality	Timeframes
Alinta	The changes to the Market Rules contemplated by RC_2011_10 will require Alinta to make significant changes to its operational processes, and its supporting IT and business systems in order to participate in the mandatory Balancing Market and/or voluntary LFAS Market.  Until the content and structure of communication transactions between System Management and Market Participants are defined it is difficult to provide an estimate of the potential costs that may be incurred by Alinta with any reasonable degree of accuracy, although these are expected to be material.	expects it would be able to meet the requirements for participating in the mandatory Balancing Market by the end of the Transition Period on 5 December 2012.
Collgar Wind Farm	This rule change will significantly impact the daily operations of Collgar participating in the WEM.  Initial estimates to cater to the higher information technology dependencies associated with the balancing market indicate costs of around \$50,000.	three months prior to the start of the new markets to implement the necessary charges, pending availability of resources needed to complete the required work.
Landfill Gas and Power	LGP will be significantly affected by the proposal, having to participate in the Balancing Market by offering turn-down prices and installing systems to receive and respond to Dispatch Instructions. LGP is currently unable to estimate the costs because the Operating	anticipates being able to implement the rule change on the same timescale as other stakeholders.

	Procedures and equipment standards have not been determined. LGP welcomes IMO power to suspend the obligation to ensure that Balancing Facilities meet the Balancing Facility Requirements, or to impose conditions on participation.  LGP encourages the IMO and System Management to develop cost-effective and fit-for-purpose system requirements that do not discriminate against small scale participants through the imposition of high costs. In particular, this would extend to IT requirements and the ability to rely on Standing Submissions instead of a manned trading desk.	
Perth Energy	There will be an impact on Perth Energy's IT systems and its business procedures. These impacts are currently being assessed.	Perth Energy believes it should be able to implement necessary changes for start of Q2 2012.
System Management (SM)	In order to perform planning, scheduling and dispatch in the new market System Management has identified a least cost scope of works to implement a capability development program and deliver a new IT based system.  The estimated incremental (i.e. costs above that already approved in System Management's Allowable Revenue) capital cost of the above scope of works is \$11.95m (including allowances for risk and escalations) over the 2011/12 – 2012/13 financial years. Ongoing incremental operating costs are estimated to average at \$1.72m per annum (including allowances for risk and escalations) over the next 4 years.  Due to the delay between System Management incurring the costs and increase in market fees there will be a \$3.79m financing cost. Actual cost will depend on recovery treatment which will need to be agreed with the ERA.	transitional go live commencement date with full market implementation in December 2012 <sup>3</sup> .  System Management considers there are risks to the April 2012 commencement date and that it would be preferable to delay the transitional go live date 'by a few months'. Robust
Synergy	Synergy's expectation is that the arrival of Competitive Balancing and LFAS will require Synergy to adapt its systems to the new reporting structures. Given Synergy has not seen the specifications it is not in a position to infer a cost of this change.	information specification available prior to the new year,

<sup>&</sup>lt;sup>3</sup> The IMO notes that during informal discussions with System Management it has received commitment for an April 1 2012 transitional go live.

		The Spec						Exchange MO website		Validation
Verve Energy	Not provided.	Not provided.								

## 4.3 The IMO's response to submissions received during the first submission period

The IMO's response to submissions and resulting changes to the Amending Rules are detailed in Appendix 1.

#### 4.4 Public Forums and Workshops

Extensive consultation was undertaken with industry from the initiation of the Market Evolution Program until the Pre Rule Change Discussion Paper was presented to the Market Advisory Committee in September 2011. This included:

- The Market Rules Design Team (MRDT) was formed early 2010 under the Oates Review (included IMO & System Management) to look at the Market Rules Evolution Program (MREP)<sup>4</sup>, and identified potential development options. The MRDT also conducted workshops to present its work to stakeholders.
- The MAC resolved in August 2010 to push the current hybrid market design as far as possible before considering more fundamental redesign options and convened the RDIWG;
- Since August 2010 the RDIWG has met 16 times. At these meetings numerous market design options were discussed. Members were presented with and commented on 5 versions of the proposed Balancing Market and LFAS rules;
- On 5 April 2011 the RDIWG noted the IMO's recommendation to propose the Balancing Market design outlined in the Rule Change proposal to the MAC; and
- On 13 April 2011 the MAC noted the IMO's endorsement to progress the proposed Balancing Market design into the formal rule change process.

In addition to the above working group meetings the IMO has conducted numerous workshops with Rule Participants to discuss the proposed Balancing and LFAS markets including:

- 4 full day workshops and 4 half day workshops with System Management over May, July and September 2011;
- 1-2 hour workshops with System Management on balancing market design details and interface requirements (held fortnightly since February 2011);
- two rounds of one-on-one MEP updates with industry stakeholders;
- four workshops with Verve Energy and the IMO design team to discuss issues specific to the operation of the Verve Balancing Portfolio;
- a number of workshops/training presentations to individual stakeholders on the Balancing Market Design and its implications;

\_

<sup>&</sup>lt;sup>4</sup> An improved balancing mechanism was identified as the number one priority by MAC in 2009

- three workshops walking industry stakeholders through the initial drafts of the proposed Balancing Market rules;
- three public workshops to provide information on the proposed market design and MEP progress; and
- 3 procedure workshop on 1, 22 and 30 November 2011 to discuss the next level of detail.

No public forums or workshops with regard to the Rule Change Proposal were held during the first submission period.

The IMO also held three public workshops on 8 November 2011, 21 November 2011 and 30 November 2011 respectively to discuss the impact of this Rule Change Proposal on Market Procedures.

#### 5. THE IMO'S ASSESSMENT

This section conducts an assessment of the modified proposed Amending Rules. In preparing its Draft Rule Change Report, the IMO must assess the Rule Change Proposal in light of clauses 2.4.2 and 2.4.3 of the Market Rules.

Clause 2.4.2 outlines that the IMO "must not make Amending Rules unless it is satisfied that the Market Rules, as proposed to be amended or replaced, are consistent with the Wholesale Market Objectives".

Additionally, clause 2.4.3 states, when deciding whether to make Amending Rules, the IMO must have regard to the following:

- any applicable policy direction from the Minister regarding the development of the market:
- the practicality and cost of implementing the proposal;
- the views expressed in submissions and by the MAC; and
- any technical studies that the IMO considers necessary to assist in assessing the Rule Change Proposal.

The IMO notes that there has not been any applicable policy direction from the Minister or any technical studies commissioned in respect of this Rule Change Proposal. A summary of the views expressed in submissions and by the MAC is available in section 4 of this report.

The IMO's assessment is outlined in the following sub-sections.

#### 5.1 Additional Amendments to the Amending Rules

Following the first public submission period the IMO has made some additional changes to the proposed Amending Rules to:

- reflect concerns and suggestions raised by participants (refer to Appendix 1 for details);
- remove the concept of Equipment Tests;

- remove references to Offers and Bids and the adoption of Balancing Price Quantity Pairs in relation to Balancing Submissions;
- amend the definition of the Theoretical Energy Schedule;
- incorporate Spinning Reserve and Load Rejection Reserve events when calculating constrained on and off compensation for the Verve Energy Portfolio;
- align the Balancing Price with the concept of marginal pricing;
- exclude ramp rate limits from Balancing Forecasting;
- require Market Participants to reflect accepted LFAS submissions into their Balancing Submissions;
- modify the Ancillary Service settlement equations to improve their clarity and incorporate a number of small changes to the methodologies (further outlined below).
- remove the originally proposed confidentiality provisions, albeit continuing to merge the Public and SWIS restricted classes and include the relevant new balancing information to be made publically available;
- clarify that the obligation to meet the Balancing Facilities Requirements only applies to facilities with a capacity greater than 10MW; and
- improve the integrity of the proposed Amending Rules in response to informal internal and external consultation.

The IMO has also updated the base for the proposed drafting to reflect all Rule Change Proposals which have commenced since these proposed Amending Rules were developed.

The reasons for significant changes are discussed below.

#### **Equipment Tests**

Participants currently need to apply for an Equipment Test by 12pm the day before they plan on doing the test. This avoids exposure to refunds due to moving off Resource Plans. Under the proposed Amending Rules, participants can reflect Equipment Test plans in their Balancing Submissions at any time until gate closure. The removal of the generation aspect of the Net STEM Shortfall calculation removes the exposure to refunds.

#### Use of the terms Bids and Offers for Balancing

These terms have traditionally been used in relation to STEM and the IMO considers that there use in relation to Balancing Submissions is potentially confusing. References to Offers and Bids in relation to Balancing Submissions have therefore been removed in favour of generic balancing price-quantity pairs.

#### **Theoretical Energy Schedule**

The Theoretical Energy Schedule (TES) is only used in the determination of the constrained on and off compensation. In the original proposal, TES is the maximum amount of energy

which a Balancing Facility could have generated from price-quantity pairs within Balancing Submissions with a price less than or equal to the Balancing Price, taking ramp rate limits into account. When the TES is compared to the metered amounts of a Facility an Out of Merit Quantity is determined. A participant is then compensated for this Out of Merit Quantity through constrained on/off payments. However, when calculating Downward Out of Merit amounts, any price-quantity pair with a price, on a loss adjusted basis, equal to the Balancing Price should be excluded from the TES. i.e. there can be no constrained off generation from a price-quantity pair that is marginal. Accordingly, the TES has been replaced by MAX TES and MIN TES parameters for Upward Out of Merit and Downward Out of Merit calculations respectively.

#### Accounting for SR and LR Reserves in Constrained on/off compensation

Verve Energy will continue to receive payments on the same basis as now for providing Spinning Reserve (SR) and Load Rejection Reserve (LR) Ancillary Services. When SR or LR are triggered, this could result in constrained on or off payments respectively. Accordingly the IMO proposes to amend the proposal to take SR and LR events into account when calculating constrained on and off compensation for the Verve Portfolio. Except for LFAS, System Management may enter AS contracts with IPP Facilities. If an IPP Facility is instructed by System Management to provide SR or LR, the instruction will be provided via an Operating Instruction and as such the Facility is not entitled to constrained on/off compensation.

#### Calculation of the Marginal Balancing Price

The Balancing Price is intended to reflect the marginal cost of balancing - the incremental cost of dispatching another MWh of generation. This has been consistently reflected in the documentation released to the RDIWG, including the "Final 12 Boxes Paper<sup>5</sup>" which was included as an attachment to the Rule Change Proposal. This concept has also been correctly implemented in the design of pricing calculation software. However in the original proposal the balancing price was to be set by the price of the Balancing Submission price-quantity pair in the Pricing BMO which the actual End of Interval Relevant Dispatch Quantity intersects. The Amending Rules now correctly reflect the marginal pricing methodology.

#### Ramp Rates in Balancing Forecasts

The proposed Amending Rules did not reflect the recommendations presented to the RDIWG in the "Balancing Design Recommendations" paper<sup>6</sup>. This paper detailed that ramp rate limits be excluded from Balancing Forecasts, at least initially. The proposed Amending Rules have been altered in line with this recommendation.

#### Accounting for LFAS in the BMO and Balancing Submissions

Under the originally proposed Amending Rules, the IMO would reflect Facility LFAS submissions in forming the BMO (in effect reserving capacity to provide LFAS upward regulation headroom and ensuring that the Facility is operating at a level which assures it can provide downward LFAS regulation). The Amending Rules have now been modified to

<sup>&</sup>lt;sup>5</sup> Further details on "Pricing" can be found on the IMO webpage: http://www.imowa.com.au/f4768,1615226/RC\_2011\_10\_Final\_12\_Boxes.pdf

<sup>&</sup>lt;sup>6</sup> Further details on "Ramp Rates in Pricing" can be found on the IMO webpage

<sup>:</sup> http://www.imowa.com.au/f4768,1615241/20110520\_-\_Balancing\_Design\_Recommendations.pdf

require Market Participants to reflect accepted LFAS submissions into their Balancing Submissions. This is in line with the general obligation on Market Participants to reflect capabilities in their Balancing submissions and provides greater flexibility for Market Participants in utilising their LFAS facilities.

#### **Chapter 10 Amendments**

At the 10 November 2010 MAC meeting (in response to a presentation by LECG on its information confidentiality rationalisation work<sup>7</sup>) the IMO agreed to prepare a discussion paper to implement the proposed changes to rationalise the status classes (public and confidential) and present back to the MAC for further discussion.

Given the importance for Market Participants to have access to timely and accurate data to ensure the new Balancing and LFAS markets operate effectively, the IMO determined to include the confidentiality rationalisation amendments within the MEP Project.

The IMO engaged Future Effect during the first submission period to assist the IMO in implementing the proposed rule amendments to the confidentiality provisions. This included the development of criteria for determining confidential information. During its investigations Future Effect identified a number of shortfalls with the proposed approach which proved impossible to overcome within the MEP timeframes. These included difficulty in defining types of information as being confidential and how to indicate which parties could have access to confidential information.

As a result the IMO considers it is more appropriate to not progress with the proposed changes at this time and reinstate and modify the previous confidentiality rules. Further consideration of other alternatives for classifying confidential information can be considered at a later date.

The IMO however notes that given the similarities between SWIS restricted and public information it proposes to merge these two classes into a single public class to provide greater transparency of information.

#### **Balancing Facility Requirements and Suspensions and Obligations**

As discussed at the 1st Workshop, to discuss the draft Market Procedures that support this Rule Change Proposal, the IMO has amended the clauses relating to Balancing Facilities Requirements to clarify that the obligation to meet the Balancing Facilities Requirements only applies to facilities with a capacity greater than 10MW while facilities with a capacity less than 10MW can choose to meet the requirements. Facilities that don't meet the Balancing Requirements are subject to bidding restrictions. The restrictions for Facilities that do not meet Balancing Requirements can be summarised as follows:

- submissions can only be made at certain times (at the start of the day); and
- submissions must be made at the price caps to ensure facilities operate to resource plans.

Further details on these restrictions can be found in the IMO Market Procedure: Balancing Facility Requirements.

-

<sup>&</sup>lt;sup>7</sup>For further details refer to the following IMO webpage: http://www.imowa.com.au/MAC\_33

#### **Modified Ancillary Service Settlement Equations**

The IMO has further modified the Ancillary Service settlement equations to improve their clarity and incorporate a number of small changes to the methodologies. The changes include:

- rationalisation of parameter names;
- clarification of the source of LF\_Market\_Payment;
- replacement of LFR with the per Trading Interval value LF\_Up\_Capacity;
- replacement of MCAP with Balancing\_Price; and
- inclusion of an adjustment term for ASC Spinning Reserve quantities in the calculation of AS\_Cost\_Saving.

The IMO also updated the base version of the originally proposed Amending Rules to reflect RC\_2010\_33, which commenced on 1 November 2011.

The changes the IMO proposes to make to the original proposal are outlined in detail in Appendix 2.

#### 5.2 Wholesale Market Objectives

The IMO considers that the Market Rules as a whole, if amended as presented in Appendix 3, will not only be consistent with the Wholesale Market Objectives but also allow the Market Rules to better address all of the Wholesale Market Objectives.

The IMO's assessment is presented below:

(a) 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 Independent Power Producers (IPP's) facilities to provide Balancing and LFAS services for the first time. This proposal to include IPP's as well as Verve in the providing of this service materially increases the number, type and physical characteristics of the facilities available to maintain system security.

The new Balancing and LFAS market proposal pushes physical energy and ancillary trading in the WEM into the trading day for the first time. This will allow Market Participants to reflect on-the-day conditions (e.g. current load forecasts, wind forecasts, fuel situation, network conditions, etc.) in their Balancing and LFAS price and quantity pairs. This is likely to result in less intervention (dispatch outside of merit) in the market than would otherwise be expected.

The new Balancing and LFAS market proposal will provide incentives for lowest cost facilities to be used. This will have the effect of reducing the overall dispatch costs by removing inefficiency that currently prevents least costs facilities from being used in Balancing and LFAS.

The new Balancing and LFAS market proposal provides the opportunity for Verve energy to register facilities as standalone and be treated on the same basis as IPP's.

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 SWIS entering a high risk state.

In addition to establishing a Balancing and LFAS market, the proposal will improve the effectiveness of the operation of the STEM market by providing greater information to Market Participants, which may assist in resource planning and investment decisions;

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

The new Balancing and LFAS market proposal will enable IPPs to compete - for the first time - with Verve Energy in providing Balancing and LFAS.

The new Balancing and LFAS market proposal may provide Participants with more confidence to compete and participate in STEM knowing they can resort to a balancing market if required.

The Balancing and LFAS market proposal is likely to make the overall market more attractive and efficient for new entrants by:

- providing more opportunity to participate in Balancing and LFAS, without financial disadvantage if dispatched out of merit (for any reason);
- increasing their ability to manage exposures to balancing; and
- overcoming inefficient day ahead STEM/ Resource Plan/Dispatch outcomes.

The current energy market design includes the concept of bilateral Dispatch Support Contracts to overcome inefficient dispatch outcomes. Even though Market Participants acknowledge and highlight inefficient dispatch outcomes, no Dispatch Support Contracts have been entered into. The central clearing nature inherent in the design of the new Balancing market proposal is likely to alleviate any counter party risks in the current participant-to-participant support contracts.

The Balancing and LFAS market proposal and the new level of transparency should provide confidence and make the WEM more attractive by:

- more accurately signalling a Balancing price that reflects the assets used in providing the balancing service; and
- providing a balancing forecast price in advance and allowing participants to respond to this signal.

The proposal should therefore promote efficient investment (e.g. in relation to the need for and value of flexibility);

(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 level of transparency will create a more level playing field for all generation and load management technologies by providing clear balancing prices in advance and the opportunity to compete to provide Balancing and LFAS.

The new Balancing and LFAS market proposal provides the opportunity for Verve energy to register facilities as standalone and be treated on the same basis as IPP's.

While demand side management technologies will not be able to enter submissions into the balancing market (at least in its initial phase), demand-side responses will be able to influence demand and affect balancing quantities and prices;

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

The proposal will help minimise the long-term cost of electricity supply by providing a means for the least cost facilities to be used for Balancing and LFAS and competitive incentives for participants to optimise facilities.

The proposal will help minimise the long-term cost by encouraging efficient investment. Increasing the timeliness and transparency of market information will allow Market Participants to make informed decisions and minimise risk concerning investment and operation.

In the longer term, market determined balancing prices that reflect the generation resources used to provide balancing should encourage participants to invest in "balancing-capable" plant (e.g. flexible, better ramp rates and minimum loads) that is better suited to the overall WEM operation.

Long-term efficient investment will also be encouraged by providing some regulatory certainty as to the provision of Balancing and LFAS markets.

Finally, the Balancing and LFAS proposals are likely to reduce the transition costs to more fundamental reforms that might be introduced in the future; and

(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 the new level of transparency will provide regular market price forecasts in advance to market customers. This advanced price signal may facilitate a more active demand side response to the new Balancing market price signals. These demand-side responses will be able to influence demand and affect balancing quantities and prices.

#### 5.3 Practicality and Cost of Implementation

#### Cost:

The proposed amendments will require changes to the systems operated by the IMO, System Management and participants in the Balancing and LFAS markets. Estimates of the

system related costs and other costs of operating and participating in the new market were included in the independent study ("Introducing Competition in Balancing Services – A High Level Cost Benefit Analysis", February 2011) of the likely costs and benefits of the Balancing market proposal which was undertaken by the Sapere Research Group. The full report can be found here: <a href="http://www.imowa.com.au/MAC\_37">http://www.imowa.com.au/MAC\_37</a> - costs for this study were provided by Market Participants, System Management and the IMO.

As a result of a significant escalation in the cost estimates provided by System Management, the IMO commissioned Sapere Research Group in September 2011 to reaffirm the Cost Benefit Analysis conclusions. In a separate note Sapere Research Group confirmed positive net benefits for the new Balancing and LFAS markets even taking into account System Management's significantly increased cost estimates<sup>8</sup>.

Market Participants provided cost estimates for the Cost Benefit Analysis conducted by Sapere Research Group, for the system modifications and operational cost estimates, required to participate in the new Balancing and LFAS markets. No further cost updates were provided by Market Participants in the first round of formal submissions

The IMO considers that the proposed rule amendments, with the modifications included in this Draft Rule Change Report, are practical and that costs will fall within the ranges assumed in the Cost Benefit Analysis, and Sapere's subsequent briefing note regarding System Management's revised cost estimates.

#### Updates to Market Procedures and other market documents

Changes will be required to the following existing IMO Market Procedures:

- Registration;
- Certification of Reserve Capacity; and
- Maximum Reserve Capacity Price.

The IMO also notes that consequential changes will be required to other Market Procedures

New Market Procedures will need to be developed by the IMO (in conjunction with industry) for:

- · Balancing Facility Requirement;
- Balancing Forecasting; and
- IMO-SM Interface requirements.

The IMO notes that changes will also be required to the following market documents:

Market Surveillance Catalogue;

DRAFT RULE CHANGE REPORT RC\_2011\_10

http://www.imowa.com.au/f139,1751340/Note\_on\_CBA\_re\_SM\_costs\_23\_Sept.pdf

- Resource Plan, Standing Resource Plan Data format, balancing submission requirements, LFAS requirements, Verve stand alone facility application form (new), LFAS facility notification form when unable to provide LFAS (new);
- The South West Interconnected System Wholesale Electricity Market: An Overview;
- Wholesale Electricity Market Design Summary; and
- The List of market documents and their confidentiality status.

Likewise, changes will also be required to a number of IMO Web Pages to reflect the new market design and internal procedures. The IMO notes that these costs are within the day-to-day operational budget of the IMO.

Changes required to the following System Management PSOPs:

- Dispatch;
- Power System Security;
- Monitoring and Reporting Protocol;
- Ancillary Services;
- Facility Outages;
- Communications and Control Systems; and
- Commissioning and Testing.

The IMO notes that changes will also be required to a number of System Management Web Pages to reflect the new market design. Updates to some internal procedures are also anticipated.

#### **Practicality:**

Given the agreed transitionary arrangements, the IMO has not identified any issues with the practicality of implementing the proposed changes. However, System Management has indicated concerns about being ready for the planned commencement date of 1 April 2012.

System Management submitted that it is planning to achieve a late April 2012 transitional go live commencement date with full market implementation in December 2012<sup>9</sup>. System Management considers there are risks to the April 2012 commencement date and stated a preference for delaying the transitional go live date 'by a few months'. It considers that robust communication systems could be in place by July 2012.

Some submitters noted that they need greater clarity about System Management's systems, for example relating to communication of dispatch instruction, in order to more accurately estimate costs and implementation timeframes. Verve Energy did not comment other than stating a preference for the LFAS Market to be implemented after the Balancing Market.

<sup>&</sup>lt;sup>9</sup> In informal discussions the IMO has received a commitment from System Management for an April 1 2012 transitional go live.

The IMO will be ready to operate the new market arrangements from the 1 April 2012 transition date and is committed to working with System Management and Market Participants to achieve this and full implementation by December 2012.

#### 6. THE IMO BOARD'S PROPOSED DECISION

The IMO Board's proposed decision is to accept the Rule Change Proposal as modified by the amendments outlined in section 5.1 and specified in Appendix 2 of this report.

The wording of the relevant Amending Rules is presented in Appendix 3 of this report.

#### 6.1 Reasons for the proposed decision

The IMO Board has made its proposed decision on the basis that the Amending Rules (presented in Appendix 3):

- is consistent with the MAC recommendation to retain the current hybrid market design, evolving this as far as practical;
- is consistent with the MEP work program to provide Market Participants with a more efficient and competitive WEM by providing:
  - a more cost reflective balancing price;
  - opportunities to provide competition for balancing services,
  - a greater ability to use more accurate (and timely) information in the operation of the Short Term Energy Market (STEM), the Balancing and Load Following Ancillary Services markets,
  - more opportunities for competition in the provision of ancillary services; and
  - a more adaptable IT system supporting the WEM.
- will allow the Market Rules to better address Wholesale Market Objectives (a) (b) (c)
   (d) and (e);
- are expected to deliver significant benefits relative to costs;
- have general support of the MAC;
- are generally supported by submissions received during the first submission period;
   and
- address previous concerns raised by Market Participants.

#### APPENDIX 1: RESPONSES TO SUBMISSIONS AND RESULTING CHANGES TO AMENDING RULES

Note that the responses to submissions presented in Appendix 1 do not contain all of the IMO's proposed changes to the Amending Rules.

#### **Submission from Alinta Energy**

	Submitter	Comment / Change Requested	IMO Response	As Amended
1	Alinta Energy	In principle, Alinta considers that markets that are effectively competitive are the most appropriate means through which to promote the economic efficiency of the WEM. The proposed changes to the Market Rules contemplated by RC_2011_10 appear to represent a step in that direction.	The IMO notes Alinta's views.	No rule change required.
2	Alinta Energy	In reviewing the individual amendments to the Market Rules proposed by RC_2011_10, Alinta has identified a number of issues on which it would like clarification from the IMO. It will submit these issues separately to the IMO. At this stage, it is difficult to determine the materiality of those and/or if other matters may arise.	The IMO welcomes any input Alinta has to improving the proposed Market Rules and commits to working with Alinta and other Market Participants who wish to engage with the IMO to ensure any issues are resolved prior to the commencement of RC_2011_10.	No rule change required.
3	Alinta Energy	System Management has indicated that, due to the frequency and anticipated number of instructions required to be issued under the proposed arrangements, all communication of such Instructions will be via electronic means. This contrasts with the current arrangements where such Instructions are generally communicated from System Management's Control Room to a Participant's Plant Facility Control Room via telephone.	The IMO notes Alinta's comments. Refer to the IMO's response to comment 55 from the System Management submission and comment 8 from Perth Energy.	No rule change required.

	Submitter	Comment / Change Requested	IMO Response	As Amended
		The changes to the Market Rules		
		contemplated by RC_2011_10 will require		
		Alinta to make significant changes to its		
		operational processes, and its supporting IT		
		and business systems in order to participate		
		in the mandatory Balancing Market and/or		
		voluntary LFAS Market.		
		While System Management provided some		
		initial information on the proposed high level		
		design for these communication		
		arrangements on 21 October 2011, it also		
		indicated that its requirements will be further		
		progressed as it moves into the detailed		
		design stage during the coming months,		
		including defining the content and structure		
		of communication transactions between it		
		and Market Participants.		
		Consequently, it is difficult at this time to		
		provide an estimate of the potential costs		
		that may be incurred by Alinta with any		
		reasonable degree of accuracy, although		
		these are expected to be material.		
4	Alinta	Provided the detailed design is available	Currently SM has commenced their	No rule change required.
	Energy	very early 2012, Alinta expects it would be	detailed systems design. It is expected	
		able to meet the requirements for	that the details of the Market Participant	
		participating in the mandatory Balancing	interface will be made available in the	
		Market by the end of the 'transition' period	early part of 2012.	
		on 5 December 2012.		

### **Submission from Collgar Wind Farm**

	Submitter	Comment / Change Requested	IMO Response	As Amended
1	Collgar Wind Farm Pty Ltd	With the introduction of market based Load Following Ancillary Service (LFAS) prices it would only be prudent that an additional requirement is added to the Market Surveillance Data Catalogue (MSDC) to ensure that these prices are monitored on a consistent and standardised basis.	The IMO agrees and has undated the proposed Amending Rules accordingly. However the IMO notes that ascertaining correlation between determinants (to be identified) requires a significant data set and this will not be available for some time. The IMO has also amended clause 2.16.4(g) to included LFAS.	2.16.2 The IMO must develop a Market Surveillance Data Catalogue  • n) [Blank]all LFAS Prices;  2.16.4(g) exploration of the key determinants for high prices in the STEM, and in Balancing and in the LFAS Market, including determining correlations or other statistical analysis between explanatory factors that the IMO considers relevant and price movements; and
2	Collgar Wind Farm Pty Ltd	MR 2.16.9(b) ii & iii Collgar supports these new market rules as drafted in RC_2011_10 and would support the IMO Compliance Team in their endeavours to monitor the SRMC of LFAS prices.	Noted.	No rule change required.
3	Collgar Wind Farm Pty Ltd	MR Collgar questions the nature for this market rule as it appears to contradict the new market rules 2.16.9(b) ii & iii. If in a LFAS submission a generator can exceed the reasonable expectation of the cost incurred in providing that service, then this market	The IMO notes that this clause relates to IMO obligations in monitoring whether it considers a Market Participant's LFAS Submission prices may exceed its "reasonable expectation of the incremental cost" where that Market Participant has market power. The IMO is of the view that	No rule change required.

	Submitter	Comment / Change Requested	IMO Response	As Amended
4	Collgar Wind Farm Pty Ltd	rule can be interpreted in a way that a LFAS Facility can eventually justify higher prices beyond the deemed reasonable expectation. Collgar encourages the IMO to provide clarity around this proposed new market rule.  MR  4.10.1(k)  When Certification of Reserve Capacity occurs annually, the new Balancing market may have different Balancing facilities in addition to the more "traditional" balancing generator. This market rule is generic in nature and hence is open to different interpretations depending on the type of Balancing facility. Collgar suggests that the market rule make reference to a procedure or standard evidence depending on the balancing facility. Or if this market rule is discretionary applied to balancing facilities	this clause does not enable a Market Participant in a position of market power to justify offering LFAS Prices above its reasonable expectation of its incremental costs.  The clause in question refers to the defined term "Balancing Facility Requirements". Those requirements are detailed in a Market Procedure to be developed under chapter 7A.Please note a Draft version of this Procedure is already available on the IMO website. The requirements that a Balancing Facility must meet is therefore clear and transparent and no change is required to this clause. In addition to this, the IMO notes that it has indicated that it will update the Certification of Reserve Capacity Market Procedure which will	No rule change required.
		then it should state how the IMO will ultimately decide the extent of evidence that a Balancing Facility must present to the them and whether certification will be on a case by case basis.	outline the types of information required to be submitted by Market Participants for CRC assessment.	
5	Collgar Wind Farm Pty Ltd	For new participants' facility entering the market, this market rule does not imply an explicit methodology for it's facility to satisfy the IMO that it will likely meet the Balancing Facility Requirements. Again as per suggestions for market rule 4.10.1(k), the IMO should make reference to a procedure or state the evidence required to mitigate	See response to comment 4	No rule change required.

Submitter	Comment / Change Requested	IMO Response	As Amended
	the potential ambiguity that this market rule could present to new participants.		
6 Collgar Wind Farm Pty Ltd	MR Balancing facilities that are a Non-Scheduled Generator and issued with Dispatch Instructions to decrease their output, rely on System Management's estimate of the maximum amount of sent out energy to form the basis of their Theoretical Energy Schedule (TES). If this energy in MWh is not estimated by System Management then Sent Out Metered Schedule (SOMS) is used and hence the balancing facility is not appropriately compensated for the downward decrease in generation.  Collgar identifies a deficiency in the proposed market rule whereby if a TES is not given then the SOMS is used; naturally this would be a much lower amount prior to a Non-Scheduled Generator receiving a Dispatch Instruction. Collgar proposes that if the a TES is not provided by System Management then the Start of Interval (SOI) MW value, converted to a MWh value, should be used to form the basis of a TES as this would better reflect the energy that a Balancing Facility would have supplied in the Trading interval had the Dispatch Instruction not been issued.	The IMO notes that TES only equals the SOMS in situations where no Dispatch Instruction was issued.  Where System Management has issued a Dispatch Instruction they are obligated to provide an estimate of what the facility would have been operating at had the Non-Scheduled Generator not been dispatched downwards.  The IMO also notes that should System Management have difficulties in providing this number straight away it can be used as an adjustment into settlements up to 12 months after the Trading Day.	6.15.1(b) for a Balancing Facility which is a Non-Scheduled Generator:  i. if a Dispatch Instruction was issued to the Balancing Facility to decrease its output, System Management's estimate of the maximum amount of sent out energy (in MWh) which the Balancing Facility would have supplied in the Trading Interval had the Dispatch Instruction not been issued if the Loss Factor Adjusted Price of the Balancing Price-Quantity Pair in respect of the Balancing Facility is greater than or equal to the Balancing Price, then the Sent Out Metered Schedule; and  ii. otherwise the Sent Out Metered Schedule for the Balancing Facilityminimum amount of sent out energy (in MWh) which the Facility could have generated in the Trading Interval if the Facility had been dispatched downwards at its Ramp Rate Limit from its SOI Quantity; or  6.15.2 The Minimum Theoretical Energy Schedule in a Trading Interval equals:

Submitte	er Comment / Change Requested	IMO Response	As Amended
			(a) for a Balancing Facility which is a Scheduled Generator, the amount which is the lesser of:
			i. the maximum amount of sent out energy (in MWh) which could have been dispatched in the Trading Interval from Balancing Price-Quantity Pairs in respect of the Balancing Facility with a Loss Factor Adjusted Price less than the Balancing Price, taking into account the Balancing Facility's SOI Quantity and Ramp Rate Limit; and
			ii. where the Balancing Facility is subject to a Planned Outage, a Forced Outage or a Consequential Outage, the maximum amount of sent out energy (in MWh) which could have been dispatched given the Available Capacity for that Trading Interval;
			<ul> <li>(b) for a Balancing Facility which is a Non-Scheduled Generator:</li> <li>i. if a Dispatch Instruction was issued to the Balancing Facility to decrease its output and the Loss Factor Adjusted Price of the Balancing Price-Quantity Pair in respect of the Balancing Facility is greater than the Balancing Price,</li> </ul>

	Submitter	Comment / Change Requested	IMO Response	As Amended
			-	then System Management's
				estimate of the maximum amount
				of sent out energy (in MWh) which
				the Balancing Facility would have
				supplied in the Trading Interval had the Dispatch Instruction not
				been issued; and
				<u></u>
				ii. otherwise the Sent Out Metered
				Schedule for the Facility; or
				(c) for the Verve Energy
				Balancing Portfolio, the maximum
				amount of sent out energy (in
				MWh) which could have been
				dispatched in the Trading Interval
				from Balancing Price-Quantity
				Pairs within the Balancing
				Portfolio Supply Curve with an
				associated price less than the
				Balancing Price, taking into
				account the Portfolio Ramp Rate
7	Callean	MAD 7.0A 2/a):	The IMO notes that as next of the Delensing	Limit and SOI Quantity.
7	Collgar Wind	MR 7.6A.2(c)i	The IMO notes that as part of the Balancing Forecasts all MPS will be able to see a	7.6A.2(c) System Management
	Farm Pty	Though this section of the market rules outlines the governing relationship between		must provide to the Electricity  Generation CorporationVerve
	Ltd	· ·	forecast of aggregate Non-Scheduled	•
	Liu	System Management and Verve Energy, it	generation. However as the forecast	Energy and the IMO by 12:30 PM
		would appear bias that some of this	provided to Verve Energy could be different	4:00PM on the Scheduling Day
		information is only privy to Verve Energy. The additional content to market rule	to the balancing forecasts (Intermittent Generators are a subset of Non-Scheduled	associated with a Trading Day:
		7.6A.2(c)i would see Verve have the	Generators) and because it is provided	7/12/10 The IMO must to the
		aggregate forecast output of all Market	earlier in the day the IMO has incorporated	7A.3.19 The IMO must, to the extent it is reasonably able within
		Participants' Intermittent Generators. This	further proposed amendments in Amending	-
		·		the Trading Interval, commencing
		does not support the transparency that the	Rules to ensure System Management	at 6:00PM on <del>1 April</del>

	Submitter	Comment / Change Requested	IMO Response	As Amended
	Submitter	IMO is seeking, hence this information should be available to all participants to use in their potential submissions and not a single entity in the market.	provides the forecast to the IMO so that it can be published to the market.	2012Balancing Market Commencement Day:  (a) publish on the Market Web Site a Balancing Forecast for each Trading Interval during the Balancing Horizon; and  (b) by the end of every half hour thereafter, publish a Balancing Forecast for each future Trading Interval in the Balancing Horizon; and  (c) as soon as practicable, publish any aggregate forecast output of Market Participants' Intermittent Generators which is received from System Management under
	Collgar Wind Farm Pty Ltd	MR  This new market rule states that a participant must comply with dispatch instructions or operating instructions until such time as another dispatch instruction is issued at a different level. This rule is limited whereby it doesn't state impacts if a dispatch instruction is not complied with and under what circumstances are acceptable for non-compliance such as physical network constraints.	The IMO notes that clause 7.7.1A is not a civil penalty provision. Clause 7.10.1 is the civil penalty clause in relation to failures to comply with the requirements of clause 7.7.1A. However clause 7.10.1 also details the conditions under which a Market Participant is excused from complying with a Dispatch Instruction (e.g. because of an Outage).	Clause 7.6A.2(c)i.  No rule change required.
9	Collgar Wind	MR 7.7.6A. Similar to market rule 7.7.1A, this market	The IMO notes that a heads of power for System Management to create a PSOP	No rule change required.

	Submitter	Comment / Chang	e Requested	IMO Response	As Amended
	Farm Pty Ltd	rule should specify Participants shoul receipt of a dis System Manageme the control of Mark considered and r reflect potential is:	a procedure that Market d follow for confirming patch instruction from ent. Circumstances out of et Participants should be narket rules drafted to sues such as system IT network constraints.		
10	Collgar Wind Farm Pty Ltd	MR Collgar supports the rule and considers Compliance Tear	<b>7B.2.14</b> e drafting of this market it necessary for the IMO noto monitor market prices in their LFAS		No rule change required.
11	Collgar Wind Farm Pty Ltd	Collgar supports outlined in the RC_  LFAS SELEC GATE CLOS HORIZ ONS  8PM - 3:00P M M 2AM - 9:00P 8AM M 8AM - 3:00A 2PM M 2PM - 9:00A 8PM M	the LFAS horizons as 2011_10.  IPPs/VS AF BALAN CING GATE CLOSU RE 6PM  12AM  6AM  12PM	Noted, please refer to Verve Energy comment 7 for amendments to these horizons and changes to the Verve Energy resubmission periods.	

Sul	bmitter	Comment / Change Requested	IMO Response	As Amended
		Collgar supports the PSC Re-bid Times as outlined in the RC_2011_10.  VERVE PSC FOR TRADING INTERVALS  BY 4PM 8PM +  BY 6PM 10PM +  BY 10PM 2AM +  BY 4AM 8AM +		
Wir	rm Pty	Under RC_2011_10, System Management will be providing a Balancing Forecast to the market which will include an aggregate of all intermittent generation. Collgar (and similar participants) would seek to obtain their own individual forecasts as produced by System Management. It should be noted that Non Scheduled Generators such as Collgar will have provided substantial site specific information to System Management in order for a market forecast to be created. Non-Scheduled Generators should have the ability to pull their forecasted quantities from the System Management so that if any anomalies do exist between the market forecast and internal participants' forecasts, then these potential issues can be remedied. Collgar strongly suggests that this provision of information from System management is drafted in the revised rule change report subsequent to the first submission period.	visibility of System Management's forecasting processes and is therefore not in a position to comment on whether Collgar's request is possible. However the IMO notes that under clause 7A.3.14 System Management may provide the IMO with a forecast of the EOI quantity for Non-Scheduled Generators to be used in the BMO. In response to Collgar's request the IMO can confirm that the individual Non-Scheduled Generation forecasts provided by System Management will be available to the Facility owners (with each Forecast) as they will be used as the balancing submission quantities in the BMO for that Market Participant and will be articulated as part of the BMO Forecast to be published by the IMO.	No rule change required.

Submitt	er Comment / Change Requested	IMO Response	As Amended
13 Collgar Wind Farm F Ltd	Collgar recognised that the IMO has incorporated SRMC requirements for LFAS into RC_2011_10 however suggests that a review should be conducted into whether price limits should apply to LFAS submissions post implementation of the new markets into the WEM. A periodic review and the potential price limits would not be foreign concept for the WEM as price limits currently exist for the STEM and Non STEM with annual reviews drafted in the current Market Rules.	The IMO notes the ERA has a role monitoring the effectiveness of the market and suggests that the ERA would report as part of its usual review process in the event LFAS prices become an issue.	No rule change required.
14 Collgar Wind Farm F Ltd	Post Implementation - Balancing and LFAS Market Cost Benefit Analysis	The IMO notes that the decision of the IMO Board to progress the proposed amendments was based on the cost benefit analysis originally presented to the RDIWG (which was based on input data from Rule Participants).  The IMO further notes that this cost benefit analysis was supplemented with a note from the authors confirming that the substantial escalation in System Management cost estimates did not fundamentally alter the positive interpretation of the cost benefit analysis. The IMO believes there would be benefit in conducting a post implementation review of the Balancing and LFAS markets once the markets have been fully implemented and running. This review is likely to include confirmation of total project costs compared with budget	No rule change required.

#### **Submission from Landfill Gas and Power**

	Submitter	Comment / Change Requested	IMO Response	As Amended
1	Landfill Gas & Power Pty Ltd	LGP supports the Rule Change Proposal.	The IMO notes LGP's support.	No rule change required.
2	Landfill Gas & Power Pty Ltd	LGP welcomes the proposal's acceptance of the principle that some existing facilities might not be reasonably capable of fully participating in the new arrangement, or that the cost of the necessary upgrades would be prohibitive.  We suggest that the wording of clause 7A1.6, which mandates that all Balancing Facilities meet the Balancing Facility Requirements, should be harmonised with clause 7A1.8 by inclusion of the words, "Subject to clause 7A1.8".	The IMO has amended the clauses in 7A.1 so that it is clear that only Balancing Facilities with a rated capacity of less than 10MW may be granted suspension from the requirement to comply with the Balancing Facility Requirements. The change is to ensure full participation in the Balancing Market of Facilities with a capacity of 10MW or more to maximise the efficiency of the market.	7A.1.6. A Market Participant must ensure that its Balancing Facilities with a rated capacity equal to or greater than 10MW meet the Balancing Facility Requirements.  7A.1.7. A Market Participant must, when required to do so by the IMO, provide in writing, all information reasonably required by the IMO in order to demonstrate that its Balancing

Submitter	Comment / Change Requested	IMO Response	As Amended
			Facilities meet the Balancing
			Facility Requirements.
			7A.1.8. If, based on the
			information provided to it under
			clause 7A.1.7, the IMO
			determines that a Balancing
			Facility, including a Balancing
			Facility with a rated capacity of
			less than 10MW, does not meet
			the Balancing Facility
			Requirements, the IMO may:
			(2) 2 2 2 2 1 1 2 2 1 1 2 2 1 2 2 2 2 2 3
			(a) suspend the obligation of
			the Market Participant to
			ensure that its Balancing
			Facility meets some or all of
			the Balancing Facility
			Requirements; and
			(b)-impose conditions on the
			manner in which the Market
			Participant must participate
			in the Balancing Market
			under these Market Rules,
			including:
			(a)i₊the price at which
			the Market Participant

Submitter	Comment / Change Requested	IMO Response	As Amended
			must submit a
			<u>Balancing</u>
			Submission;
			(b)ii.the manner and
			time in which a
			Balancing Submission
			must be submitted;
			<del>and</del>
			iii.the entitlement to be
			issued Capacity
			Credits.
			7A.1.9. [blank]Where a
			suspension granted by the IMO
			under clause 7A.1.8(a) or a
			condition imposed by the IMO
			under clause 7A.1.8(b) is
			inconsistent with another clause
			in the Market Rules the
			suspension and/or condition is to
			be given effect notwithstanding
			that inconsistency.
			7A.1.10. The IMO must publish a
			decision under clause 7A.1.8 to
			grant a suspension or impose a
			condition together with the details

	Submitter	Comment / Change Requested	IMO Response	As Amended
				of such suspension and condition.
				7A.1.11. In making a
				determination under clause
				7A.1.8, the IMO must consider
				whether the likely benefits to the
				operation of the Balancing Market
				would be outweighed by the
				relative cost to a Market
				Participant in ensuring its
				Balancing Facility meets the
				Balancing Facility Requirements.
3	Landfill Gas	LGP encourages the IMO and System	The IMO notes LGP's comment and	No rule change required.
	& Power	Management to develop cost-effective and	reiterates that the IMO systems being	
	Pty Ltd	fit-for-purpose system requirements that do	developed will allow for standing	
		not discriminate against small scale	submissions to be utilised in the	
		participants through the imposition of high	Balancing Market. Further information will	
		costs. In particular, this would extend to IT	be made available to interested parties via Market Participant User Guides to be	
		requirements and the ability to rely on Standing Submissions instead of a manned	published on the IMO's website during the	
		trading desk.	Market Trial phase.	
4	Landfill Gas	Given the participative nature of the	The IMO notes LGP's ability to implement	No rule change required.
	& Power	initiative to date, LGP anticipates being able	the changes on the same timescale as	3 - 1
	Pty Ltd	to implement the Rule Change on the same	other stakeholders generally.	
	_	timescale as other stakeholders generally.		

## **Submission from Perth Energy**

	Submitter	Comment / Change Requested	IMO Response	As Amended
1	Perth Energy	Verve Energy must and other Market Participants may make submissions for Load Following Ancillary Services (LFAS). The IMO will take LFAS submission into account when constructing the BMO.		No rule change required.
2	Perth Energy	Perth Energy welcomes and supports the IMO's Rule Change Proposal to introduce competitive pressure in the Balancing market and in the Load Following market. These changes are the logical next steps in further opening up the WA energy market to private sector investment and competitive tension.	The IMO notes Perth Energy's support.	No rule change required.
3	Perth Energy	Continued exclusion of non-Verve Energy Facilities would be detrimental to the achievement of Market Objectives (a) relating to efficiency, (b) relating to competition and (d) relating to long term cost of electricity production.	The IMO notes Perth Energy's assessment.	No rule change required.
4	Perth Energy	Perth Energy considers that the proposed changes would significantly increase competition in the provision of Balancing and Load Following services and by extension increase the efficiency in the provision of these services.	The IMO notes Perth Energy's views.	No rule change required.
5	Perth Energy	Perth Energy also welcomes the risk mitigating properties of the Rule Change Proposal.	The IMO notes Perth Energy's views.	No rule change required.
6	Perth Energy	Perth Energy supports the proposed changes to the calculations of the price that will apply to energy imbalances.	The IMO notes Perth Energy's support.	No rule change required.

	Submitter	Comment / Change Requested	IMO Response	As Amended
		The proposed new, pure marginal balancing price will provide the market with a simpler to understand and more cost reflective price of balancing energy, raising efficiency in the WEM.		
7	Perth Energy	Perth Energy acknowledges the significant amount of work put into preparing these proposals by both the IMO and Market Participants through participation in workshops, working groups and consultations over the last year. However, despite such efforts, Perth Energy considers it likely that there may be some unforeseen problems arising from these changes. Should that occur, the IMO must be prepared to be flexible in its interpretation of the new amending rules to ensure the intent of the changes are implemented. The IMO should also be prepared to consult on Fast Track Rule Changes to rectify any manifest errors that may be identified.	Noted. The IMO is continuing to examine the proposed Amending Rules in a great level of detail and welcomes input from Rule Participants on enhancements to the rules.	No rule change required.
8	Perth Energy	Perth Energy advocates a cautious approach to implementing the changes. There are many IT system changes for the IMO, System Management and Market Participants that will need to be implemented properly ahead of go-live for the proposed changes. In addition, training and familiarisation with the new rules for staff at all organisations involved with the market will also need to take place ahead of go-live. The IMO should allow for the	The IMO notes that while it is firmly committed to a go live date of 1 April (as explained in System Management comment number 55), the proposed amendments allow for the IMO Board to choose any date between 1 April and 1 July if an unforseen circumstance occurs which would prevent the ability of the Balancing market to commence on 1 April. The IMO notes that the structure of the WEMS settlement calculations and	No rule change required.

	Submitter	Comment / Change Requested	IMO Response	As Amended
		possibility of delays to the go-live date to ensure that all Market Participants are ready for the changes when they occur.	· · · · · · · · · · · · · · · · · · ·	
9	Perth Energy	Perth Energy considers the Rule Change Proposal would positively impact on the achievement of Market Objectives (a), (b) and (d) with no detrimental impacts on the remaining Market Objectives.	1	No rule change required.
10	Perth Energy	There will be an impact on Perth Energy's IT systems and its business procedures. These impacts are currently being assessed. Perth Energy believes it should be able to implement necessary changes for start of Q2 2012. Perth Energy is currently on track to implement necessary changes to its systems.	assessment and that it is currently on	No rule change required.

## **Submission from Synergy**

	Submitter	Comment / Change Requested	IMO Response	As Amended
1	Synergy	In this regard, Synergy requests that the IMO	The IMO notes Synergy's support for the	No rule change required.
		publish, under clause 10.5.1(j), the forecasts	changes to Chapter 10. However as noted	
		of aggregated Non-Scheduled Generation	in section 5.1 the IMO is not pursuing the	
		used in the Load Forecasts prepared by	proposed changes to chapter 10 at this	
		System Management under clause 7.2 .1.	point in time.	
			In regards to the requirement to publish	
			aggregated non-scheduled forecasts the	
			IMO notes that this obligation exists under	
			clauses 7A.3.19 and the definition of	

	Submitter	Comment / Change Requested	IMO Response	As Amended
			Balancing Forecast in Chapter 11.	
2	Synergy	Market Rules 6.7.3 and 6.7.4 - should be reviewed for relevance  Synergy suggests it may be timely, as part of the implementation of Competitive Balancing, that the IMO review the continuing relevance of rules 6.7.3 and 6.7.4. This is because the Competitive Balancing arrangements are designed to result in a least cost Balancing Merit Order from which to meet actual demand. Purposefully or inadvertently overstating a Net Contract Position in a functional Competitive Balancing environment will only impact pricing to the extent that an over contracted Market Generator offers prices to ensure dispatch allowing other Market Participants to benefit accordingly. In an environment where there is no single balancing entity and all Market Generators participate in balancing, competitive forces will act to deliver the most efficient prices, irrespective of contracted positions; as such the requirement for continuing to maintain these rules should be reviewed.	The IMO considers that these clauses ensure that a retailer which has a bilateral position exceeding its demand cannot artificially inflate the STEM price by overstating demand and accordingly receive the increased STEM price on some of its contracted energy.  The IMO considers that this reasoning is still relevant notwithstanding the introduction of the Balancing and LFAS Markets. Therefore the IMO is not proposing to remove these clauses in this Rule Change.	No rule change required.
3	Synergy	6.5C.7(a) makes reference to 6.11.1(f) - the latter is undefined; is 6.11.1(a) the correct reference?	The IMO agrees that the reference under clause 6.5C.7(a) is incorrect and has updated the proposed Amending Rules to refer to clause 6.11.1(a).	6.5C.7(a) A Market Participant, other than Verve Energy, must ensure that either:  (a)  NonSchGen = the amount under

	Submitter	Comment / Change Requested	IMO Response	As Amended
		<u> </u>		<u>clause 6.11.1(fa)</u>
4	Synergy	Is there a conflict between 6.11.1(a) which mandates the inclusion of Non-Scheduled Generator output in a Resource Plan and 6.11.2(c) which lists data valid for inclusion in a Resource Plan but does not include Non-Scheduled Generators? A possible solution would be to amend 6.11.2(c) as follows: "it must include only Dispatchable Loads or Scheduled Generators and Non-Scheduled Generators, but the latter only where the submitting Market Participant has both Scheduled and Non-Scheduled Generators, ."	The apparent inconsistency is due to the fact that while Non-Scheduled Generators are not eligible to put facility specific data into a Resource Plan Submission, such as the data required under subclause b of 6.11.1, they are still required to submit a forecasted quantity of energy which is to be supplied by each Non-Scheduled Generator (for the purposes of 6.5C.7). However the IMO agrees with Synergy that the inclusion of clause 6.11.2(c) is confusing. The IMO is of the view the clause is superfluous and has deleted it.	6.11.2. For Resource Plan Submission data or Standing Resource Plan Submission data to be valid:  (bA) it must not include a Generator for any Trading Interval if that Generator is under going a Commissioning Test during that Trading Interval; and  (c) [Blank] it must not include only Scheduled Generators or Dispatchable Loads Interruptible Loads or Demand Side Programmes; and
5	Synergy	6.12.1(a) refers to Dispatch Instructions to increase or decrease output in the context of Dispatchable Loads and Demand Side Programmes; as Demand Side Programmes cannot be instructed to increase load, to clarify this suggest the words "as applicable" be appended to the end of the clause.	Agreed.	6.12.1(a) By 1:30 PM on the Scheduling Day; (or within 40 minutes of a closing time extended in accordance with clause 6.5.1(b) or clause 6.5A.1(b)) the IMO must determine the Non-Balancing Dispatch Merit Orders identified in paragraphs (b) to (g). A Non-Balancing Dispatch Merit Order lists the order in which the Scheduled Generators and Dispatchable Loads and Demand Side Programmes of Market Participants other than the Electricity Generation

Submi	tter Comment / Change Requested	IMO Response	As Amended
			Corporation Verve Energy will, in the absence of transmission limitations or limitations necessary to maintain Power System Security, be issued Dispatch Instructions by System Management under clause 7.6.1B(d) to increase or decrease output, as applicable.
6 Synerg	9 6.12.1(c)i deals with the Non-Balancing Dispatch Merit Order for an increase in consumption and requires that it include Demand Side Programmes - this is incorrect as Demand Side Programmes cannot be instructed to increase consumption - remove the reference to Demand Side Programmes which would then make this clause consistent with 6.12.1(e)i.		6.12.1  (c) A Non-Balancing Dispatch Merit Order for an decrease in generation or increase in consumption relative to the quantities included in the applicable Resource Plan (or the current operating level of a Facility not included in a Resource Plan) during Peak Trading Intervals. The IMO must take into account the following principles when determining this Non-Balancing Dispatch Merit Order:  i. this Non-Balancing Dispatch Merit Order must list all Scheduled Generators, Non-Scheduled Generators and Dispatchable Loads and Demand Side Programmes registered by Market Participants other than the

	Submitter	Comment / Change Requested	IMO Response	As Amended
				CorporationVerve Energy;
7	Synergy	6.17.10(a) makes reference to 3 MWh, suspect this should be 3 MW.	Clause 6.17.10(a) refers to settlement tolerance applied to the Verve Energy Balancing Portfolio. As settlements are conducted in MWh terms the reference to MWh is correct.	6.17.10 The Portfolio Settlement Tolerance equals the lesser of: (a) 3 MWh; and (b) 3% of the Sent Out Capacity of the Verve Energy Balancing Portfolio divided by 2 to be expressed as MWh.
8	Synergy	7.6A2(c)i refers to the aggregate forecast output of other Market Participants' Intermittent Generators; would the object forecast to be provided by System Management be more useful to Verve Energy if the it were to exclude the aggregate forecast output of all Intermittent Generators i.e. the resultant forecast informs Verve Energy of the requirements expected from its Balancing Portfolio but adjusted to exclude Verve's own Intermittent Generators?	Verve Energy will be able to see from the Dispatch Plan how its Intermittent Generation included in their balancing portfolio are expected to be dispatched. The amount of balancing required from the portfolio is inclusive of Verve Energy's Intermittent Generators included in the portfolio. This is not the case if Verve Energy elects to have its Intermittent Generators as Stand Alone Facilities. The clause has been amended to ensure these Facilities are covered.	7.6A.2.(c)i. a forecast of the requirements for the Electricity Generation CorporationVerve Energy energy in its the Verve Energy Balancing Portfolio, being a forecast of the whole of system energy requirement less the aggregate Net Contract Positions energy of all Resource Plans of other Market Participants and less the aggregate forecast output of other Market Participants' Intermittent Generators and any other Intermittent Generators treated as Stand Alone Facilities, for the Trading Day;
9	Synergy	7.10.2A restricts non-compliance to solely a Forced Outage, in this context the question arises as to circumstances of non-compliance due to a Consequential Outage and therefore whether this should also be	The IMO agrees and has amended clause 7.10.2A to only refer to "Outage".	7.10.2A A Market Participant is not required to comply with a Dispatch Instruction where the Market Participant has advised System Management in accordance with clause 7.10.3

	Submitter	Comment / Change Requested	IMO Response	As Amended
		included as a justifiable reason for non-compliance?		that it cannot comply with the Dispatch Instruction and the non compliance is due solely to an Forced Outage.  Outage: Means a Forced Outage, a Planned Outage or a Consequential Outage, as applicable.
10	Synergy	7.11.1 - in the context of the Balancing Market, is reference to Resource Plans still relevant?	The IMO agrees and has subsequently removed the reference to Resource Plans.	7.11.1 A Dispatch Advisory is a communication by System Management to Market Participants, Network Operators and the IMO that there has been, or is likely to be, an event that will require a significant deviation from Resource Plans, dispatch of Facilities Out of Merit or will restrict communication between System Management and any of the Market Participants, Network Operators, or the IMO.
11	Synergy	7.13.1(dB) - is the required information in respect of SOI and EOI Quantities for each Trading Interval to be listed by Facility or summed across all Facilities?	The IMO notes that SOI and EOI quantities are to be listed by Facility and has subsequently clarified this in clause 7.13.1(dB).	7.13.1 System Management must provide the IMO with the following data for a Trading Day by noon on the first Business Day following the day on which the Trading Day ends:  (dB) the SOI Quantity—and the EOI Quantity and of each Facility for each Trading Interval; and

	Submitter	Comment / Change Requested	IMO Response	As Amended
				Quantity for each Trading Interval;
12	Synergy	7.13.1(eD) - reference to Operating Instruction should be removed as quantity of consumption pursuant to an Operating Instruction is not a settlement quantity under 6.17.6(c)i as the WEM rules no longer allow dispatch payments to be made to Demand Side Programmes in connection with Network Support Contracts i.e. Demand Side Programmes can only receive Dispatch Instruction payments from the WEM in connection with a dispatch related Reserve Capacity Obligations and such dispatch is made as a Dispatch Instruction, not an Operating Instruction.	The reference to Operating Instruction has been removed from clause 7.13.1(eD).	7.13.1 System Management must provide the IMO with the following data for a Trading Day by noon on the first Business Day following the day on which the Trading Day ends:  (eD) the required decrease, in MWh, in the consumption of each Demand Side Programme, by Trading Interval, as a result of System Management an Operating Instruction or a Dispatch Instructions, where this is to be used in settlement as the quantity described in clause 6.17.6(cel)(i);
13	Synergy	7 A.1.15 - incorrect reference in the clause; should be 7A.1.14, not 7A.1.15. Also, in the interests of transparency, the IMO may wish to consider including an obligation to consult with the market prior to changing the point in time determined under clause 7A.1.14.	The incorrect clause reference has been amended in this clause.  The IMO intends will provide the market reasonable notice before altering the point in time.	The IMO may, from time to time, change the point in time determined under clause 7A.1.154 by publishing the new point in time on the Market Web Site and specifying the date from which the new point in time is to take effect, which shall be no earlier than 2 months from the date of publication.
14	Synergy	7A.3.5(a) - consider inserting "under the clause 7A.3.2" after the words "determine the	Agreed.	7A.3.5 The IMO must:

	Submitter	Comment / Change Requested	IMO Response	As Amended
		Balancing Merit Order" to improve clarity.		(a) determine the Balancing Merit Order under clause 7A.3.2 for a Trading Interval using the most recent, valid Balancing Submissions available to it; and
15	Synergy	7A.3.6(b) - clarity would be improved by including the words Relevant Dispatch Quantity as follows: (b) the Relevant Dispatch Quantity, which is the sum of the EOI Quantities	Agreed.	7A.3.6 System Management must, no later than 2 hours after the end of the Trading Day, provide the IMO with an estimate of:  (b) the Relevant Dispatch Quantity, which is the sum of the EOI Quantities for each Balancing Facility needed for Balancing, in MW, at the end of a Trading Interval,
16	Synergy	7A.3.7 - Does "Pricing BMO" need to be defined in the Glossary or in this clause?	Definitions should, where possible, appear in the Glossary.	No rule change required.
17	Synergy	7A.3.7(c) - Given this clause requires the provisional Balancing Price to be published on the Market Web Site, then this should be a term defined in the Glossary. Also suggest that Price be expressed in lower case as it does not appear to be a defined term.	Agreed.	7A.3.7 The IMO must, by the end of a Trading Day where it has been provided with the information under clause 7A.3.6 for a Trading Interval:  (a) use that information to determine a pProvisional Pricing BMO for that Trading Interval;  (b) use the pProvisional Pricing

	Submitter	Comment / Change Requested	IMO Response	As Amended
				BMO under clause 7A.3.7(a) to determine the pProvisional Balancing Price, being the Loss Factor Adjusted Price corresponding to the point where the estimated Relevant Dispatch Quantity intersects the pProvisional Pricing BMO; and  (c) publish that the Provisional Balancing Price on the Market Web Site.  Provisional Pricing BMO: Means the provisional Pricing BMO determined under clause 7A.3.7(a).  Provisional Balancing Price: Means the price determined under clause 7A.3.7(b).
18	Synergy	Clause 7A.3.7 requires the IMO to publish the provisional Balancing Price (for a Trading Interval where it has been provided with information under 7A.3.6) by the end of the Trading Day following the Trading Day to which it applies i.e. within 24 hours of the end of the relevant Trading Day. Clause 7A.3.10 requires the IMO publish the Balancing Price for each Trading Interval in a Trading Day by no later than 38 hours of the end of that relevant Trading Day. Given that the provisional Balancing Price may be amended within 14 hours after being	published Balancing Price will be easily identifiable (e.g. forecast, provisional or final). The specifics of this identification will be outlined in the Market Participant	No rule change required.

	Submitter	Comment / Change Requested	IMO Response	As Amended
		published, clarity would be enhanced if the provisional Balancing Price was published with the prefix "Provisional", which is then removed once clause 7A.3.9 applies or the Balancing Price is published under clause 7A.3.10. Information users observing the prefix "Provisional" would then be on notice that the price may change, however, once the prefix is removed, they would know that the price is firm and is not subject to further change.		
19	Synergy	7A.3.8 - insert "provisional" before the words " Pricing BMO accordingly".	Agreed.	7A.3.8 System Management must, as soon as reasonably practicable but in any event no later than 24 hours after the time specified in clause 7A.3.6, provide the IMO with any updated adjustments to the information provided under clause 7A.3.6 and the IMO must use any such updated SOI Quantity and EOI Quantity information to revise the Provisional Pricing BMO accordingly.
20	Synergy	7A.3.12(a) - appears that the word "recent" is missing from the sentence: "the most [recent] Relevant Dispatch Quantity "; the suggested inclusion is shown in square brackets.	The inclusion of the word "most" is a typographical error and has been deleted.	7A.3.12 If the IMO is unable to determine the Balancing Price under clause 7A.3.9 in time to publish it in accordance with clause 7A.3.10, including because it has not received the information required to be provided by System Management under clauses 7A.3.6 or 7A.3.8, the IMO is to determine the Balancing

	Submitter	Comment / Change Requested	IMO Response	As Amended
	Submitter	Comment / Change Requested	IMO Response	Price:  (a) where the Relevant Dispatch Quantity and/or Pricing BMO is not available - by using the BMO and/or the Forecast Relevant Dispatch Quantity for the Trading Interval so that the Balancing Price is the point where the most Relevant Dispatch Quantity or most recent forecast of the Relevant Dispatch Quantity (as applicable) intersects the Pricing BMO or most recent BMO (as applicable);
21	Synergy	7A.3.12(c) - formatting error: insert "semicolon and" after (a) with the appropriate carriage returns.	Agreed.	7A.3.12 If the IMO is unable to determine the Balancing Price under clause 7A.3.9 in time to publish it in accordance with clause 7A.3.10, including because it has not received the information required to be provided by System Management under clauses 7A.3.6 or 7A.3.8, the IMO is to determine the Balancing Price:   (c) where the Pricing BMO and The BMO and the Forecast Pricing BMO is are not available for the Trading Interval the IMO is to use the most recent Forecast BMO in place of the BMO in (a); and

	Submitter	Comment / Change Requested	IMO Response	As Amended
				(d)
22	Synergy	7A.3.16(a)(ii) - reference to 7A.3.16(a) should be 7A.3.16(a)(i).	Agreed.	7A.3.16 Where the IMO determines the Forecast BMO and Forecast Pricing BMO under clause 7A.3.15, the IMO must:  (a)  where the IMO is unable to provide the information in clause 7A.3.16(a)(i) - the Balancing quantities expected to be provided for a Trading Interval in the Balancing Horizon as indicated by the most recent Forecast BMO; and
23	Synergy	7A.3.17A - reference to 7A.3.17A should be 7A.3.17.	The correct reference is 7A.3.16. The IMO has amended the clause accordingly.  The IMO notes that it has also renumbered other impacted clauses by as a result of its non-sequential ordering of the clauses in the original proposal.	7A.3.17A The IMO must provide the information required under clause 7A.3.17A6 at the same time as the IMO publishes the Balancing Forecasts under clause 7A.3.19.
24	Synergy	7B.2.3 - typo: remove] after 6:00PM.	The IMO agrees and has removed the typo from clause 7B.2.3.	7B.2.3 Subject to clause 7B.2.5, Verve Energy must immediately before 6:00PM; submit an LFAS Submission, for one or more Trading Intervals in the Balancing Horizon for which LFAS Gate Closure has not occurred, by submitting it to the IMO;
25	Synergy	9.8.1 - typos: A. Incorrect reference to 6.14.2	The IMO agrees that the incorrect	9.8.1 The balancing settlement

	Submitter	Comment / Change Requested	IMO Response	As Amended
	Submitter	in Balancing Price definition; in fact a better definition, that allows for the provisional Balancing Price to be amended is: "Balancing Price (d,t) is the Balancing Price for the Trading Interval t of Trading Day d published in accordance with clause 7A.3.10." B. Insert "and" between " for each of the Market Participant's Scheduled Generation Facilities and Non-Scheduled Generation Facilities for that "	reference has been used and has amended the reference from clause 6.14.2 to clause 7A.3.9 for consistency with the definition of Balancing Price.	amount for Market Participant p for Trading Interval t of Trading Day d is:  Balancing Price (d,t) is the Balancing Price for Trading Interval t of Trading Day d calculated in accordance with clause 6.14.27A.3.9;
26	Synergy	9.9.2 - Please review all definitions for relevance and accuracy under this section as there appears to be numerous errors.	As outlined in section 5.1 the IMO has redrafted section 9.9.2 of the proposed Amending Rules.	No rule change required.
27	Synergy	9.9.3 - Contracted Spinning serve should be Contracted Spinning Reserve	Agreed.	9.9.3 The value of ASP_Payment(i,m) for Ancillary Service Provideri Rule Participant in Trading Month m is the sum of:  (a) the sum over all Ancillary Service Contracts for Spinning Reserve Contracted Spinning Reserve Services c provided by Rule Participant i of ASP_SRPayment(ic,m), the payment under that contract;
28	Synergy	9.18.3.ixAA Delete Non-Compliance Cost settlement.	Agreed.	9.18.3 A Non-STEM Settlement Statement must contain the following information:  (c) for each Trading Interval of each Trading Day:

Submitter	Comment / Change Requested	IMO Response	As Amended
			(ix) details of amounts calculated for the Market Participant under clauses 9.7 to 9.14 with respect to:
			4A Non-Compliance Cost settlement;

## **Submission from System Management**

	Submitter	Comment / Change Requested	IMO Response	As Amended
1	System	System Management (SM) supports this	The IMO notes System Managements	No rule change required.
	Management	work and is of the view that securing	support.	
		additional capability for both Balancing and		
		Load Following Ancillary Services (LFAS)		
		will be achieved most effectively using a		
		market based approach. SM also notes that		
		the Proposal would reduce existing system		
		security issues associated with excessive		
		generation overnight and resource plans		
		with high increments. Further, SM supports		
		the role of the Independent Market Operator		
		(IMO) role in the administration of such a		
		market.		
2	System	Timeframes	The IMO notes that RC_2011_10 reflects	No rule change required.
	Management	SM is concerned to ensure that the quality	substantial policy and market design work	
		of the policy development process is not	undertaken over a substantial period of	
		compromised by an urgency to implement	time in conjunction with stakeholders,	

Submitter	Comment / Change Requested	IMO Response	As Amended
Submitter	Comment / Change Requested changes when that urgency is not supported by strong supporting analysis.	including System Management. The IMO also notes that the timeframes for the development of the Rule Change Proposal included a number of informal consultation rounds:  • The Market Rules Design Team (MRDT) was formed early 2010 under the Oates Review (included IMO & System Management) to look at the Market Rules Evolution Program (MREP) <sup>10</sup> , and identified potential development options. The MRDT also conducted workshops to present its work to stakeholders.  • The MAC resolved in August 2010 to push the current hybrid market design as far as possible before considering more fundamental redesign options and convened the RDIWG;  • Since August 2010 the RDIWG has met 16 times. At these meetings numerous policy development options were discussed. Members were presented with and commented on 5 versions of the proposed Balancing Market and LFAS rules;	As Amended
		with and commented on 5 versions of the proposed Balancing Market and LFAS rules;  On 5 April 2011 the RDIWG noted the IMO's recommendation to propose the Balancing Market design outlined in the Rule Change proposal to the MAC; and On 13 April 2011 the MAC noted the IMO's endorsement to progress the	
		proposed Balancing Market design into the formal rule change process.	

\_

<sup>&</sup>lt;sup>10</sup> An improved balancing mechanism was identified as the number one priority by MAC in 2009

Submitter	Comment / Change Requested	IMO Response	As Amended
Submitter	Comment / Change Requested	In addition to the above working group meetings the IMO has conducted numerous workshops with Rule Participants to discuss the proposed Balancing and LFAS markets including:  • 4 full day workshops and 4 half day workshops with System Management over May, July and September 2011;  • 1-2 hour workshops with System Management on balancing market design details and interface requirements (held fortnightly since February 2011);  • two rounds of one-on-one MEP updates with industry stakeholders;  • four workshops with Verve Energy and the IMO design team to discuss issues specific to the operation of the Verve Balancing Portfolio;  • a number of workshops/training presentations to individual stakeholders on the Balancing Market Design and its implications;  • three workshops walking industry stakeholders through the initial drafts of the proposed Balancing Market rules;  • three public workshops to provide information on the proposed market design and MEP progress; and  • 3 procedure workshop on 1, 22 and 30 November 2011 to discuss the next level of detail.	AS Americed
		The IMO has also planned another series of one-on-one meetings with Market Participants in late November early	

	Submitter	Comment / Change Requested	IMO Response	As Amended
			December and again in January/February	
			of 2012.	
			Furthermore, the IMO notes that another	
			round of formal consultation on the	
			proposed amendments is to follow the	
			publication of this Draft Rule Change	
			Report.	
			The IMO further notes that the 1 April 2012	
			start date was chosen in consultation with	
			System Management which requested a	
			delay from 1 December 2010 so that the	
			start of the new Balancing Market did not	
			coincide with the summer peak season.	
			The IMO has maintained this start date for	
			a number of reasons, these are:	
			<ul> <li>there were no objections to the start date in Market Participant submissions</li> </ul>	
			• there are additional costs associated	
			with extending the project past 1 April,	
			which have been highlighted to	
			participants.	
			Finally, the IMO notes that RDIWG	
			members, including System Management	
			have agreed to transitionary arrangements	
			for the first 6-8 months of the Balancing	
	Custom	Mith the number of major etructural changes	Market.	No rule abance required
3	System	With the number of major structural changes		no rule change required.
	iviariagement	made as part of the Proposal, the lack of	·	
		· · · · · · · · · · · · · · · · · · ·	RDIWG and MAC, including the "Final 12"	
		explanatory memorandum, is a concern.		
		Transparency is not assisted by the fact that	• ,	
		there has been limited exposure to new and	· ·	
		modified market procedures. The IMO has	facilitated numerous workshops and	

	Submitter	Comment / Change Requested	IMO Response	As Amended
		not declared how it intends to implement substantial and new responsibilities that it carries under the amended market design.		
			The Market Procedures are currently being reviewed informally at industry workshops during November and early December.	
			Market Procedures are subject to a formal Procedure Change Process, including public consultation.	
			The IMO has issued a number of WEMS System Interface and file format specifications. Through these processes, the IMO's new responsibilities under the	
			new market design will be formulated prior to the implementation of the Balancing Market.	
4	System Management	SM notes that the decision to remove the generation component of Net Stem Shortfall is against the original recommendations of the Lantau Group, which suggested changes should only be made in a	of the Net STEM Shortfall is consistent with the removal of other financial penalties (such as UDAP and DDAP).	No rule change required.
		coordinated fashion, considering their impact in the context of the whole RCM.  Further, the IMO's approach to mitigation of the risk created by that decision (e.g. use of		
		the existing Reserve Capacity test regime is not supported by a robust analysis and was questioned and in some cases opposed by	strong incentives to reflect available	

	Submitter	Comment / Change Requested	IMO Response	As Amended
		some members of the MAC, including SM.	System Management continues to have the same discretion as it currently has to	
		SM's analysis of the Proposal indicates that	·	
		there are some substantial risks associated		
		with the IMO's implementation of the	,	
		Proposal in its current form. These are	Please see the IMO's response below to	
		presented in the risk register at Attachment	the comments raised in Attachment A	
		A.	including comments 10 and 30 below.	
		The Reserve Capacity Mechanism (RCM)		
		exists only to support supply reliability. In		
		this objective it has been important to SM's		
		ability to manage the SWIS through		
		extended critical threats to electricity supply.		
		Amongst others, these include the extended		
		interruption to gas supply that ensued after the incident on Varanus Island.		
		Given the purpose that this capacity serves,		
		and its considerable value, it is reasonable		
		to insist that decisions are documented in a		
		manner that is robust, transparent and that		
		allows accountability for each decision to be		
		determined.		
5	System	SM submits that information essential to the	The powers provided to System	No rule change required.
	Management	real-time operation of the power system	Management in clause 7.6 of the proposed	
		should in general either be provided directly	Amending Rules give it discretion in	
		to SM by the Market Participant concerned	_	
		(or if it is provided via the IMO, provided at	,	
		all times within a defined timeframe		
		acceptable to SM), and that the use of that	·	
		information to resolve real-time issues	,	
		should not require iterative interactions with		
		Market Participants.	conveyed to the market through a Dispatch	

	Submitter	Comment / Change Requested	IMO Response	As Amended
	Sustifices	The amended rules do not allow SM any discretion in dealing with a unit that repeatedly and materially deviates from its dispatch instructions over a short period of time.  SM submits that the proposal should be amended to allow SM to deviate from the Balancing Merit Order (BMO) in situations where the recent behaviour of a Market	Advisory so that the Market Participants affected by the decision could prepare to be dispatched in a manner different to that	As America
		Participant reasonably leads SM to believe that they may not comply with future Dispatch Instructions (e.g. if the Market Participant has indicated in standing data that its time to respond to a dispatch instruction exceeds the time available from receipt and acceptance of that dispatch instruction).		
6	System Management	In this context, the absence of an independent arbiter on matters of process or administration creates an obligation on the IMO to support its decisions with high quality, robust and transparent analysis. SM questions whether the Proposal achieves the standards expected of a robust policy development process.  For example, the Proposal presents more than 200 pages of amendments without annotation or explanation. Considered together with the lack of supporting analysis for decisions that materially alter the functions of Governance Participants, and obligations on Rules Participants, SM is	information has been presented to the RDIWG and MAC to support this proposed Rule Amendment has been the "Final 12 Boxes" paper referred to in the Rule Change Proposal. In addition to the high level design a number of "design decision" papers were also present to the RDIWG to support the more detailed design decisions. These documents are all available on the MEP section of the IMO website.  For more information please refer to response to comments 2 and 3 above.	No rule change required.

	Submitter	Comment / Change Requested	IMO Response	As Amended
		concerned at this limited transparency.		
		SM submits that, under such circumstances,		
		consideration should be given to providing		
		more time for the IMO to consolidate the		
		firm basis for each of its decisions in relation		
		to each Key Focus Area (including the		
		rationale for their inclusion).		
		Further, the IMO should make available to		
		the market an annotated version of the		
		redrafted rules, setting out the purpose		
		and/or logic behind the drafting approach		
		taken to implementation of each Key Focus		
_	0 -1	Area.		Nicolardo de Carta
	System	The proposed changes introduce the	See response to comment 4 above.	No rule change required.
	Management	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.		
8	System	Definition of Balancing Submission	Maximum Supply Capability is a defined	11 – Glossary
	•	Also, drafting appears extremely crude. The		<del></del>
		words "to the maximum" are unclear.		Balancing Submission: Means:
		System Management believes it should be a	does not include potential Ancillary Service	
		defined term - 'Maximum Supply Capability'	quantities. The term "to the maximum", in	(a) for a Balancing Facility, other
		is the standard way of defining this concept.	the phrase "for each MW of its Sent Out	
			Capacity from zero to the maximum" when	Portfolio, that is a:

	Submitter	Comment / Change Requested	IMO Response	As Amended
			considered in conjunction with the	
			definition of Sent Out Capacity, details that	i. Scheduled Generator, for each
			the maximum quantity to be provided is	Trading Interval or Trading
			that specified in the Standing Data.	Intervals, a ranking of Balancing
				Price-Quantity Pairs for each MW
			No change to the drafting has been made	of its Sent Out Capacity from zero
			as a result of this submission.	capacity to the maximum Sent Out
				Capacity, together with associated
				Ramp Rate Limit for each Trading
				Interval; and
				ii. Non-Scheduled Generator, for
				each Trading Interval or Trading
				Intervals, the Market Generator's
				best estimate of the quantity for the
				Balancing Price-Quantity Pair, in
				MW, the Facility is able to reduce
				its output, together with the
				associated Ramp Rate Limit for
				each Trading Interval; and
				(b) for the Verve Energy Balancing
				Portfolio, the Balancing Portfolio
				Supply Curve together with the
				Portfolio Ramp Rate Limit.
				Tortiono Ramp Rate Limit.
9	System	7A.1.13	The IMO has amended this clause to	7A.1.13 Where this Chapter 7A
	•	IMO determines a timeline not consistent		imposes a timeframe of "as soon
	Č	with SM's information requirements for	, ,	as reasonably practicable", the
		secure power system operation.	Document Procedures and hence will be	IMO may prescribe in a Market
			subject to the governance for procedure	Procedure the latest time by which
		As the IMO is aware, System Management's	changes including public consultation.	this must be done.
		primary responsibility is to maintain the		

	Submitter	Comment / Change Requested	IMO Response	As Amended
		security of the power system. Discharging		
		that responsibility requires both timely		
		access to information and freedom to act		
		where necessary.		
		-		
		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.		
10	System	2.36.9	The IMO/System Management interface	No rule change required.
	Management	Changes to Interface Spec are ultra-vires	document is not currently subject to formal	
			governance. The new clause enhances,	
		This rule appears to be attempting to	and introduces proper governance to, an	
		circumvent the normal rule change process.	existing process. Further, the changes	
		SM encourages IMO to make use of the	ensure that there are always appropriate	
		structure and governance arrangements in	and workable arrangements in place to	
		place for procedure changes if it wishes to	cover the important interface between the	
		amend the Interface Spec.	IMO and System Management.	
			The interface document is to be a Market	
			Procedure as it involves detailed technical	
			information and processes as between two	
			Rule Participants, which may change from	
			time to time. Such a technical document	
			should not be included in the Market Rules.	
			The IMO is not acting ultra vires and draws	
			System Management's attention to	
			regulation 13(6) of the Electricity Industry	
			(Wholesale Electricity Market) Regulations	
			2004, which enable the Market Rules to	
			provide for the IMO to impose	
			requirements upon System Management	
			as to the performance of System	

	Submitter	Comment / Change Requested	IMO Response	As Amended
		· ·	Management's functions.	
11	System Management	7.6.1B 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.	The Market Rules as proposed are designed to ensure that System Management is able to exercise discretion and judgement in order to meet the Dispatch Criteria. The IMO considers that the Market Rules as proposed give System Management the appropriate discretion so that it has the power and authority required	No rule change required.
			The IMO also notes that the Dispatch PSOP details the specifics of how System Management will manage the dispatch process.	
12	System Management	7.6.1B 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.	systems stability the Facility under the proposed Amending Rules would receive constrained on/off payments.  In such situations (i.e. the Facility aided the system in an approved automatic manner) the Facilities variation from the BOM would be unlikely to be viewed as a compliance matter subject to SM's confirmation.	No rule change required.
			The IMO considers that this example is a strong argument for the removal of automatic penalties such as UDAP and DDAP and supports the concept of a move to a discretionary penalty regime where	

	Submitter	Comment / Change Requested	IMO Response	As Amended
			participants are not penalised for behaviour that is beneficial to the market/ SWIS.	
13	System Management	7.7.3(d) 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	control without a robust Ancillary Service Contract arrangement in place (such as a Dispatch Support Service contract), the compliance regime in the proposed Market Rules ensures that when System Management exercises its ability to allow a Facility to "look after" frequency control the facility would be eligible for constrained on/off payments for energy generated out of merit and the IMO would consider this in any investigation into a compliance breach.	No rule change required.
		level, the process is relatively straightforward, System Management could document its application and the guidelines in a PSOP.		
14	System Management		November 2011 Procedure workshop refers to the relevant sections of the System Management managed PSOPs when dealing with technical matters.  The IMO and System Management have previously agreed for the Balancing Facility Requirements Market Procedure to refer to relevant sections of the PSOPs when	No rule change required.
		Balancing Generators, including minimum technical capabilities, will be clearly	1	

Submitter	Comment / Change Requested	IMO Response	As Amended
	in a PSOP. However, Balancing Generators will be excluded if they		
	2. are consistently unable to fulfil their obligations to the Balancing market.		
System Management	arrangements and increased transparency. The IMO undertook to progress the Sapere recommendations through a pre-rule change paper but never did so, these changes have never been discussed/agreed by MAC. In situations such as those which existed for the period of gas supply disruption following the Varanus Island explosion. Major supply outages were only averted because of the visibility that SOC had of fuel reserves. Disrupting this function while the system is in a high risk, or emergency state would severely curtail SOC effectiveness in returning the system to	Rule Change Report the IMO is not pursuing the proposed rationalisation of the Confidentiality classes at this time. Please refer to Section 5.1 and Section 7 (updated Amending Rules) of this Draft Rule Change Report for further details.	No rule change required.
System Management	2.36.10(f) 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	the IMO and SM systems interface to be a Market Procedure. This will ensure that appropriate and transparent market governance is imposed over this important	No rule change required.
	System Management	communicated with IPP's and documented in a PSOP. However, Balancing Generators will be excluded if they  1. have not received final approvals of their arrangement from SM; or  2. are consistently unable to fulfil their obligations to the Balancing market.  System  Management  10.2  SM supports benefits of simplified arrangements and increased transparency. The IMO undertook to progress the Sapere recommendations through a pre-rule change paper but never did so, these changes have never been discussed/agreed by MAC. In situations such as those which existed for the period of gas supply disruption following the Varanus Island explosion. Major supply outages were only averted because of the visibility that SOC had of fuel reserves. Disrupting this function while the system is in a high risk, or emergency state would severely curtail SOC effectiveness in returning the system to normal operating state.  System  Management  System  Management  Carbon do fuel reserves are tained the profile that it currently has. This rule appears to require systems be built to an amended spec,	communicated with IPP's and documented in a PSOP. However, Balancing Generators will be excluded if they  1. have not received final approvals of their arrangement from SM; or  2. are consistently unable to fulfil their obligations to the Balancing market.  System  Management  System  Management  Management  Management  Management  System  Management  Management  As explained in Section 5.1 of the Draft Rule Change Report the IMO is not pursuing the proposed rationalisation of the Confidentiality classes at this time. Please refer to Section 5.1 and Section 7 (updated Amending Rules) of this Draft Rule Change Report for further details.  Report for further details.  System  As explained in Section 5.1 of the Draft Rule Change Report the IMO is not pursuing the proposed rationalisation of the Confidentiality classes at this time. Please refer to Section 5.1 and Section 7 (updated Amending Rules) of this Draft Rule Change Report for further details.  Report for further details.  System  As explained in Section 5.1 of the Draft Rule Change Report the IMO is not pursuing the proposed rationalisation of the Confidentiality classes at this time. Please refer to Section 5.1 and Section 7 (updated Amending Rules) of this Draft Rule Change Report for further details.  Report for further details.  System  As explained in Section 5.1 of the Draft Rule Change Report the IMO is not pursuing the proposed rationalisation of the Confidentiality classes at this time. Please refer to Section 5.1 and Section 7 (updated Amending Rules) of this Draft Rule Change Report for further details.  System Schange Report the IMO is not pursuing the visuality classes at this time. Please refer to Section 5.1 of the Draft Rule Change Report the IMO is not pursuing the proposed rationalisation of the Confidentiality classes at this time. Please refer to Section 5.1 of the Draft Rule Change Report the IMO is not pursuing the visuality classes at this time. Please refer to Section 5.1 of the Draft Rule Change Report the IMO is not pursuing the p

	Submitter	Comment / Change Requested	IMO Response	As Amended
		business process have been determined.	to go through the Procedure Change Process and therefore are subject to a	
		SM submits that this amendment is neither	•	
		prudent nor cost effective. No guidance or	However there maybe circumstances that	
		governance over the circumstances in which	require more immediate changes to the	
		the IMO would exercise this discretion.	system interface to ensure the market	
		Shared systems are likely to exist well into	systems remain stable and for the efficient	
		AR3, neither the IMO nor SM has the ability	performance of the SM and IMO function.	
		to dictate how these systems should be		
		configured.	agreement has been reached with SM an	
			interim interface change can be	
			implemented immediately.	
			A subsequent formal procedure change is	
			required to be processed as soon as	
17	Custom	2.10.17	practical.	No mile about the recognition of but
17	System	IMO has not provided any information	The amendments to the Procedure Change	• .
	Management	supporting its additional discretion in this	·	-
		regard. SM cannot see any material benefits	9	_
		to the amendment as proposed.	Proposal: Extensions to Procedure Change	111 NO_2011_12).
		to the amendment de proposed.	Process Timelines (RC_2011_12). The	
		Administrative convenience is not a	relevant clauses have been removed from	
		substitute for good process.	the proposed amendments for	
			RC_2011_10.	
18	System	7A.3.6	This clause has been amended to read:	7A.3.6 System Management must,
	Management	If the phrase 'needed for balancing' refers to	"each Balancing Facility needed for	no later than 2 hours after the end
		all balancing facilities then it should be	Balancing"	of the Trading Day, provide the IMO with an estimate of:
		excluded for clarity. If the phrase refers to		
		some other matter than this needs to be		
		defined.		(b) the Relevant Dispatch Quantity,
				which is the sum of the EOI
				Quantities for each Balancing Facility needed for Balancing, in
				i dollity <del>flooded for Dalaholify,</del> III

	Submitter	Comment / Change Requested	IMO Response	As Amended
		·		MW, at the end of a Trading
				Interval,
19	System	7A.3.6	` , '	No rule change required.
	Management	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'	and so if System Management is not able	
			to use its SCADA system to determine an	
			EOI quantity it will need to develop an	
			estimation process in a PSOP. If System	
			Management requires additional	
			information from such Facilities it would be	
			possible to specify these requirements in the Balancing Facility Requirements	
			Market Procedure. However, the details of	
			these requirements will need to be	
			provided to the IMO, either through the	
			informal consultation currently being held	
			on the Market Procedure or through the	
			formal Market Procedure Change Process.	
20	System	7.6.2AA(b)	Changes to this clause have been made	7.6.2AA A reference to a Balancing Merit Order in this clause 7.6
	Management	MR 7.6.2AA contemplates circumstances	S S	means, for a Trading Interval:
		where the relevant Balancing Merit Order may not be available to the IMO. It provides	• •	-
		that the Balancing Merit Order may be in	=	(a) the Balancing Merit Order
		specified circumstances "the most recent		provided by the IMO to System Management under clause
		Forecast BMO provided for the same		7A.3.5(b);
		Trading Interval for the previous day" (MR	IMO is not able to develop a BMO or	
		7.6.2AA(d)). In these circumstances the	forecast BMO and therefore contends that	(b) if no such Balancing Merit
				Order is provided, the most recent

	Submitter	Comment / Change Requested	IMO Response	As Amended
	Submitter	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 interruption 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.	the clause as drafted is consistent with the Balancing Market Objective that pricing and dispatch be consistent.  The IMO does not propose any further	Forecast BMO for that Trading Interval provided under clause 7A.3.16(b);  (c) if no such Forecast BMO is provided, the BMO or the Forecast BMO that was used by System Management for issuing Dispatch Instructions for the same Trading Interval the previous day; or if both Trading Intervals occur on a Business Day, or the most recent non-Business Day if the Trading Interval occurs on a non-Business Day.  (d) if there is no such Forecast BMO, the most recent Forecast BMO provided for the same Trading Interval occurs on a non-Business Day.
21	System Management	3.10.1  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.	LFAS it requires for an interval up to 60 minutes out from LFAS Gate Closure, while	No rule change required.
22	System Management	<b>7B.3.9</b> The proposed amendment refers to System Management being the cause of an External Constraint. An External Constraint is defined in the Glossary as " an event impacting	Management additional flexibility in selecting LFAS Facilities. System	7B.3.9 Where System  Management is the cause of an  External Constraint affecting the  Network, or the Network is not

	Submitter	Comment / Change Requested	IMO Response	As Amended
		the operation of the whole of the SWIS or any significant part of it". It is unclear as to how System Management could be the cause of an External Constraint.  In the circumstances contemplated by clause 7B.3.9 does the current drafting limit the ability to use the Verve balancing	Facilities other than in accordance with the LFAS Merit Order where System Management considers, on reasonable grounds, that it needs to do so in order to operate the SWIS in a reliable and safe manner. Clause 7.11.5 has also been amended so that System Management must issue a Dispatch Advisory when it expects to use LFAS Facilities other than in accordance with the LFAS Merit Order and must include in the Dispatch Advisory details of the estimated quantities of LFAS that are to be used, reasons for the	responding to frequency deviations, System Management may use the LFAS Facilities for meeting LFAS requirements other than in accordance with the LFAS Merit Order. System Management may select and use LFAS Facilities other than in accordance with the LFAS Merit Order where System Management considers, on reasonable grounds, that it needs to do so in order to operate the SWIS in a reliable and safe manner.  7.11.5 (h) [Blank] System Management expects to use LFAS Facilities other than in accordance with the LFAS Merit Order under clause 7B.3.9; and  7.11.6(dB) where System Management is to release a Dispatch Advisory under clause 7.11.5(h), details of the estimated quantities of LFAS that are to be used, reasons for the deviation from the LFAS Merit Order and all relevant information about the deviation;
23	System Management	7B.2.18 & 7B.2.19  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	provide the LFAS that the LFAS Market has cleared them to provide. Clauses	selected under clauses 7B.3.5(b)

	Submitter	Comment / Change Requested	IMO Response		As Amended
	Submitter	adequate for information needed for real-time management of the power system.  The drafting is inconsistent with the IMO's design brief (http://www.imowa.com.au/f4768,1615220/2 011 0804LFAS_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)	IMO Response		unable to provide some or all of the LFAS Quantity for which it has been selected, advise the IMO and System Management, in the manner and form prescribed by the IMO, whether the LFAS Facility is physically able to provide any LFAS in that Trading Interval and if so, the quantity, in MW.  7B.2.18 Where an LFAS Facility is selected under clauses 7B.3.5(b) or (c) to provide LFAS in a Trading Interval, then a Market Participant must, unless it has provided advice to the IMO and System  Management under clause 7B.2.167, provide the LFAS in the Trading Interval when required to do so by System Management under the Market Rules.  7B.2.19 Where the IMO has received advice under clause 7B.2.16, the IMO must, as soon as practicable, notify System  Management the quantity of LFAS the LFAS Facility is able to provide in the Trading Interval according to
24	Cyatam	7B.3.6	The IMO does not consider the	at the	the advice received by the IMO.
	System Management	The proposed rule as drafted could result in the scheduling of too many units to provide		bands	ino rule change required.

	Submitter	Comment / Change Requested	IMO Response	As Amended
		load following. If this occurs interaction of their control systems (dead bands) might mean System Management does not get the aggregate response needed for the safe and secure operation of the power system.  Drafting amendments to include a clause similar to 7B.3.6 added that puts a limit on the total number of units that can be used to meet the load following requirement (e.g. a maximum of 4 load following units at anyone time)	the number of providers. The proposed Amending Rules have a process for ensuring this does not happen through System Management specifying restrictions under 7B.1.2(c) on the quantities eligible for LFAS Facilities to bid into LFAS Market. The IMO also refers System Management to clause 7B.3.9 regarding the use of LFAS out of merit and the comments on comment 23 above.	
25	System Management	7A.3.14  An obligation on IMO to use the most recent forecast of RDQ in its calculation of forecast is essential to ensure that price signals sent to market appropriately best reflect operating conditions. Inappropriate price signals won't support balancing generators decision making in relation to appropriate/ timely start up arrangements.	the latest information available to the IMO.	No rule change required.
26	System Management	7.5.7  Transparency - It is unclear as to what System Management is required to do with fuel declarations. Fuel declarations change the standing data to be used in terms of ramp rate and max capacity. It is unclear as to whether System Management uses these quantities 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). All clauses in regard to fuel declarations are no longer	declaration requirements. The current arrangements, where IPPs must notify System Management of the fuel expected to be in use and must update System Management if the fuel in use is to change, are to be maintained.  Any fuel declaration made as part of a Balancing Submission System Management is under no rule obligation to	No rule change required.

Submitter	Comment / Change Requested	IMO Resnonse	As Amended
Submitter	required as these are made to the IMO. If it is the capacity and rates given in the BMO then this must be removed to avoid ambiguity.  SM understands that IMO has agreed to remove these clauses. (BenC following discussions with IMO - System Management has no obligation in relation to fuel declarations).	this information as it is only required for the validation of Balancing Price offers.	As Amended
27 System Management	7B.3.5  2.3 The IMO must provide to System Management certain information set out in MR 7B.3.5(d). However there does not appear to be a timeframe for compliance. We need it in time to be able to ensure that all LFAS providers are running and ready to be switched into appropriate AGC mode.	Orders to System Management between LFAS Gate Closure and LFAS Gate Closure within 15 minutes. The IMO also notes that it is the responsibility of the	7B.3.5(e) each time the IMO creates an LFAS Merit Order, to the extent the IMO is reasonably able, publish it and the highest price selected under each of clauses 7B.3.5(b) and (c) for each Trading Interval in the LFAS Horizon for which the LFAS Merit Order relates as soon as reasonably practicable after the determination, but no later than 15 minutes after the LFAS Gate Closure for which the LFAS Merit Order relates. between one and a half to two hours before the start of the first Trading Interval in the LFAS Horizon to which the LFAS Merit Order relates.  7B.3.5A To the extent it is reasonably able, the IMO must:  (a) provide the information referred to in clause 7B.3.5(d) within 15 minutes of the LFAS Gate Closure

	Submitter	Comment / Change Requested	IMO Response	As Amended
28	System	6.11.1  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	This requirement will be included as part of the "form and manner prescribed by the IMO". However, for the avoidance of doubt it has been re-instated in the proposed Amending Rules.	to which the information relates; and  (b) notify the Market Participant with the LFAS Facility or Facilities selected under clauses 7B.3.5(b) and 7B.3.5(c) of that selection and the associated LFAS Facility quantities to be provided by Trading Interval, within 15 minutes of the LFAS Gate Closure for that Trading Interval.  6.11.1(b) in respect of for each Scheduled Generator and Dispatchable Load registered by the Market Participant:  ii. [blank] for a Scheduled Generator, the intended times of synchronisation and desynchronisation, expressed to the nearest minute, during the Trading Day;
29	System Management	7.3.2 & 7A.2.10  Clauses 7.3.1 and 7A.2.10 both affect the currency of the data System Management considers in real time despatch 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	would appear to be no ambiguity with Clause 7A.2.10. A principle of the new Balancing market is that System Management dispatch in accordance with the BMO. Market	No rule change required.

	Submitter	Comment / Change Requested	IMO Response	As Amended
		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).	outages in their balancing submission and are able to adjust these within the gate closure window.  Market Participants are required to advise SM of any forced outages.  There may be circumstances where Market Participants have insufficient time to make a change to their current trading period submission. In these cases SM would	
30	System Management	The decision itself will be reasonably straightforward, but the potential is that if SM (for any reason) misses this deadline, the potential is for a major part of our Fall Back AS capabilities may be removed from the Verve Energy 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	to the balancing portfolio. Therefore the IMO does not consider a further amendment to this clause is required.	No rule change required.

	Submitter	Comment / Change Requested	IMO Response	As Amended
		that it would be strongly advisable for the default response to reject rather than		
		approve Verve Energy's		
31	System Management	7.10.5 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 noncompliant 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		No rule change required.
		who are approaching the tolerance limit if that will provide comfort to Market		
		Participants.		
32	System Management	The proposed rule changes do not provide for sufficient compliance obligations for		No rule change required.

	Submitter	Comment / Change Requested	IMO Response	As Amended
		participants to offer their full capacity to the		
		market and as a result pose a considerable		
		risk to the continued secure and reliable		
		operation of the power system.		
33	System	The Rules, including the Rules Change	Refer to comment 5 above.	No rule change required.
	Management	Proposal, do not allow SM any discretion in		- '
		dealing with a unit that repeatedly and		
		materially deviates from its dispatch		
		instructions over a short period of time. SM		
		would like the Rules Change Proposal		
		amended to allow them to deviate from the		
		BMO in situations where the recent		
		behaviour of the Market Participant		
		reasonably leads SM to believe that they		
		may not comply with future Dispatch		
		Instructions.		
34	System	Section 7.10.5 requires that where a Market	Refer to comment 5 above.	No rule change required.
	Management	Participant's Facility is operating outside its		
		Tolerance Range, SM must warn the		
		Participant of the deviation, seek an		
		explanation. SM believes this requirement is		
		unworkable as in many cases, operation by		
		a Participant outside the Tolerance Range		
		as a result of an incident resolution will be		
		time-critical.		
		SM 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, but would also like the		

	Submitter	Comment / Change Requested	IMO Response	As Amended
		Rules amended to allow SM to take corrective action immediately if a generator moves out of tolerance.		
35	System Management	SM notes the true marginal cost of dispatch can only be achieved by determining the price of the marginal facility, which in many instances is a Non-balancing Facility (e.g. a Demand Side Program).  SM submits that important pricing signals are distorted through this omission.	affect load and impact the Balancing Price. Providing for real time dispatch of DSP Facilities is a possible future enhancement to the new Balancing Market.	No rule change required.
36	System Management	SM submits that the deletion of DDAP and UDAP remove a market based price signal intended to incentivise dispatch compliance.  As a result, the importance of the civil penalty relating to clause 7.10.1 concerning compliance with dispatch instructions is elevated.  Limited information is available on the detail	Rules and how these are applied are detailed in the Monitoring Protocol Market Procedure.  The IMO has commenced communicating with Market Participants how the IMO intends to monitor and manage compliance in the new Balancing and LFAS markets. Further workshops are scheduled before the Balancing Market commences. For more detail refer to comment 5 above.	,
37	System Management	SM notes that the Verve Portfolio is the Default LFAS Provider and as such may require many of its facilities to remain in the Portfolio to secure future provision of LFAS service in the absence of longterm contracts.	allow for Stand Alone Facilities to perform Verve Energy's default Ancillary Service provider role.	No rule change required.
38	System Management	SM submits that the requirement for participants in the LFAS market to comply with SM's reasonable requirements in terms	Management to provide the LFAS Facility	No rule change required.

	Submitter	Comment / Change Requested	IMO Response	As Amended
39	System	of technical capability and AGC control has been omitted from the Proposal and represents a substantial risk to the continued secure and reliable operation of the Power System. SM requires heads of power in the Market Rules to enable it to enforce these reasonable requirements.  Section 7B.2.18 covers the situation of	been added to ensure that for a Facility to be classed as an LFAS Facility they must be approved by System Management.	
	•	LFAS facilities that are unable to meet the requirements for which they are scheduled. The Rules currently require the Participant to advise the IMO, who is then obligated to pass the information on to SM "as soon as practicable".  SM would like the Rule amended so that the Participant is required to advise SM directly, or that the IMO is required to pass the information on within a defined timeframe at all times and in all situations.		
40	System Management	SM notes that the Proposal substantially increases the opportunities to game. To the extent that the IMO's as yet undetermined compliance processes are not successful in identifying and preventing such behaviour, SM submits that heightened risk to the continued secure and reliable operation of the power system will result.	RDIWG to rely more heavily on an effective compliance regime in preference to arbitrary financial penalties and its associated distortions to the market.	
41	System Management	SM notes that in the area of LFAS, there is no price cap safety net and the financial impacts on the market are totally reliant on the civil penalty regime to ensure that prices offered are a "reasonable expectation of the	Market Participants to incorporate any start up, running and shut down costs associated with their LFAS Facility into the	7B.2.9A Where a subsequent LFAS Submission is made under clause 7B.2.7, a Market Participant must create and maintain internal records of the reasons for submitting the subsequent LFAS

	Submitter	Comment / Change Requested	IMO Response	As Amended
		incremental cost".	costs are greater than the Forecast Balancing Price). Take for example a hypothetical facility with a minimum generation capacity of 100MW and the ability to provide 10MW of LFAS. The design requires the Market Participant to	Submission, including details of any changed circumstances and impacts of those circumstances that gave rise to the new LFAS Submission and the Market Participant's expectation of the incremental cost to be incurred by
42	System Management	Because Market Procedures are still being developed, significant uncertainty exists in relation to the manner in which the IMO intends to implement its substantial new responsibilities under the Proposal.		No rule change required.

	Submitter	Comment / Change Requested	IMO Response	As Amended
		SM submits, that the market appears to be placing confidence in the IMO's implementation of a range of measures that are yet to be defined and whose effectiveness has not yet been assessed.		
43	System Management	SM has reviewed the information in the rule change proposal and finds that it references the need for participants to make capacity available if required, and notes that the current arrangement "overstates the impact and/ or distort Market Participant decisions" (p9). What is impacted has not been identified. The decisions that will be distorted and the extent to which market efficiency is compromised by those distortions has also not been identified.	proposed Amended Rules to submit Balancing Price Quantity Pairs for all available capacity (not on outage) to the Balancing Market. Non-compliance with this rule is subject to Civil Penalties. This issue has been discussed extensively at the RDIWG and also at meetings held between System Management and the	No rule change required.
44	System Management	The Rule Change Proposal states that should the facility be "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". The proposal does not identify how the IMO might come to such a view. However, the real time nature of such problems implies that SM should retain some discretion in	The appropriate method for such testing is the Reserve Capacity Test currently allowed for under the Market Rules.  In regards to System Management's suggestion that there is no evidence in the proposed Amending Rules that "compliance monitoring" will lead to an	No rule change required.

Submitter	Comment / Change Requested	IMO Response	As Amended
	terms of requiring facilities to undertake a test should it believe it necessary.	comment 4 above.	
	SM submits that information contained within the Rule Change Proposal does not adequately define the issue, nor does it		
	constitute a robust treatment of the nature and impacts of the issue. Alternatives for addressing the issue, their implementation		
	and any potential impacts on the achievement by the RCM of its objectives are also not addressed.		
	SM turned to the CEO Recommendation Paper published on the IMO's. It finds that it focuses only on the practical implications of two alternatives for 'ad-hoc' compliance testing.		
	SM reviewed the minutes of the two meetings referred to in that paper and, apart from a commitment by the IMO to progress a pre-rule change discussion paper, did not find any substantive discussion supporting		
	the decision that had been inferred from RDIWG deliberations. A number of issues raised by SM at RDIWG and MAC in respect of triggers for testing of facilities and mechanisms for initiation of such tests were not considered further.		
	The IMO has not provided any guidance as to how this decision has been implemented		

	Submitter	Comment / Change Requested	IMO Response	As Amended
		in the redrafted rules. Interested parties are left to attempt to infer this for themselves from more than 200 pages of redrafted rules.		
		SM also submits that it can find no evidence in the redrafted rules that "compliance monitoring" of the type referred to in the design decisions would lead to an enforceable obligation to ensure that such capacity is available to the balancing market if required. This brings into question the basis of the statement in IMOs Rule Change Proposal Key focus 8 that "All capacity will continue to be available to System Management for dispatch via the Balancing Merit Order"		
		SM submits that the RC_2011_10 does not communicate the manner in which it has implemented an important decision to remove a fundamental design aspect of the RCM in a manner that is sufficiently transparent.		
45	System Management	SM has concerns that several aspects of the Rules Change Proposal have the potential either to compromise its access to information or to inappropriately restrict its ability to act on it. SM submits that information essential to the real-time operation of the power system should in general either be provided directly to SM by the Market Participant concerned (or if it is	should have timely access to all information it needs to carry out its functions. The IMO is concerned to avoid duplicate or multiple sets of information, with the potential for discrepancies as this will adversely impact of the efficient operation of the Market. System	No rule change required.

	Submitter	Comment / Change Requested	IMO Response	As Amended
		provided via the IMO, provided within a defined timeframe acceptable to SM), and that the use of that information to resolve real-time issues should not require iterative interactions with Market Participants. These concerns can be readily resolved in the Rules Change Proposal by providing SM with heads of power for it to specify the types of information it reasonably needs to	to it to deal with system issues as they arise.  The IMO invites System Management to detail specific information or information types that System Management considers it needs that are not currently available to it under the proposed Amending Rules and which would increase the likelihood of System Management being unable to avoid	
46	System Management	One example of this relates to the IMO's decision not to implement an "Operational Test", instead relying on the existing Reserve Capacity Testing regime. In doing so IMO has removed SM's discretion to require a facility to prove its operational capacity if SM believes that doing so is required. SM is concerned about the security implications of this.	Facility's capacity is not available there is no lessening of System Management's existing powers to require a Facility to prove its operational capacity by the proposed Amending Rules. If in System Management's opinion the uncertainty	No rule change required.
47	System Management	SM notes that when the results of the Sapere's study were presented to MAC in November 2010, the IMO undertook to prepare a Pre-Rule Discussion Paper on Confidentiality. Instead, in including the amendments to Chapter 10, the IMO has chosen to bypass that commitment.	Please refer to comment 15 above.	No rule change required.

Subn	mitter	Comment / Change Requested	IMO Response	As Amended
		SM submits that the IMO has not delivered on its undertaking to facilitate discussion on an important aspect of the new market design. Instead, it has chosen to implement the recommendations of Sapere without subjecting those to the appropriate level of discussion within the MAC.  It is recommended that the proposed		
48 Syste Mana	em agement	transparency. For instance disclosure is required for the Load Following offers or constrained on/off payments and quantities. However there is no equivalent	that if there is transparency for Balancing Facilities then there should also be the same level of transparency for Non- Balancing Facilities and has included a	10.5.1(iC) the following LFAS summary information:  i for each Trading Interval in each completed Trading Day in the previous 12 calendar months:  1. the LFAS Downwards Merit Order;  2. the LFAS Upwards Merit Order;  3. where available, the Upwards LFAS Quantity and the Downwards LFAS Quantity; and  4. where available, the LFAS Price;  10.5.1 (iD) for each Trading Interval in each Trading Day during the 12 calendar months, before the end of the seventh day from the start of the Trading Day, the LFAS Submissions by Market Participant.

	Submitter	Comment / Change Requested	IMO Response	As Amended
				(jA)i. for each Trading Interval in each Trading Day during the 12 calendar months, before the end of the seventh day from the start of the Trading Day, any changes to a Facility's Consumption Decrease Price or Consumption Increase Price;  (jA)ii. The values of any Consumption Decrease Price or Consumption Increase Price of a Facility that has been dispatched pursuant to a Dispatch Instruction, as soon as practicable.  10.5.1(j)i. the values of the Balancing Price and the LFAS Price, MCAP UDAP and DDAP;
49	System Management	Proposed Rule Change 2.10.17 which allows the IMO to extend the deadline for the completion of Market Procedure Change Proposals. This proposed change may prevent SM from completing its necessary changes to SMs Market Procedures.		No rule change required.
50	System Management	Proposed Rule Change 2.36.10 which allows the IMO to dictate the provisions and implementation of the Interface Document Procedures. SM is of the view that it must be consulted on and agree the format, form and manner in which it is to provide information to the IMO so that it can comply with the requirements in a timely and cost effective manner, without impacting system security.		No rule change required.

	Submitter	Comment / Change Requested	IMO Response	As Amended
51	System Management	Proposed Rule Change 7A.1.13 which allows the IMO to determine what is "as soon as reasonably practicable". The market requires more clarity on what the expected timeframes are to be.		No rule change required.
52	System Management	<del>i '</del>	The IMO contends that such a civil penalty exists as explained in comment 4 above.	No rule change required.
53	System Management	Protected Provisions 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.	Chapter 10 at this point in time.	No rule change required.
54	System Management	SM believes that the protected provision of clauses 2.10.17, 2.10.18 & 2.10.19 is not appropriate as it relates to the IMO dictating the deadline for a Procedure change.		No rule change required.
55	System Management	this only leaves 5 months from internal approval for SM to undertake the significant development work required to implement the new market systems, which thus puts the April 2012 go-live at risk.		No rule change required.
56	System Management	SM notes other risks to the April 2012 golive date:  1. Small timeframe from Rules approval to market go-live.  2. Magnitude of the change and the consequential likelihood of significant issues		No rule change required.

Submitte	er Comment / Change Requested	IMO Response	As Amended
	being raised in the public consultation		
	process requiring extension in Rule change		
	timeframes. SM recognises the consultation		
	efforts of the IMO through the Rules		
	Development & Implementation Working		
	Group in developing the market design and		
	Rules which reduces this risk. However		
	given the magnitude of the change and		
	limited RDIWG membership it is likely that a		
	number of new issues will be raised.		
	3. Ongoing discussions between the IMO		
	and SM on detailed design issues with flow		
	on impacts to the Rules and market		
	procedures.		
	4. Rules being more outcome based thus		
	market procedures having greater		
	importance and are necessary to provide		
	the required detail to Market Participants.		
	Procedure development has only recently		
	commenced. {Note: Market procedures		
	workshop		
	has been delayed by 2 weeks which		
	has been delayed by 2 weeks which represents 5% of the available time before		
	market go-live. SM believes the market		
	procedures development was on the critical		
	path for market go-live and thus a 2 week		
	delay in market go-live is warranted.		
	dolay in market go iivo io warranted.		
	5. Market trials will only truly test the new		
	systems if all participant (including SM)		

	Submitter	Comment / Change Requested	IMO Response	As Amended
	Gabillittei	systems are functional. SM will only be able	Timo response	A Ameriaca
		to actively participate towards the back end		
		of the market trial period and still in a limited		
		capacity. Through discussions with various		
		generators, SM understands a number of		
		participants are yet to make significant		
		inroads into their system designs and are		
		thus unlikely to be able to actively		
		participate either.		
		participate entrer.		
		6. Ability of market participants to have their		
		systems in place to achieve the		
		requirements of the new market. SM notes		
		the IMO is proposing to initially reduce		
		compliance requirements on generators but		
		limit the way they participate in balancing.		
		This is likely to reduce the number of		
		participants initially actively participating in		
		balancing. The IMO should consider when		
		the bulk of generators will have systems in		
		place to actively participate and select this		
		as the go-live date to ensure sufficient levels		
		of competition to achieve the identified		
		benefits of the new market.		
		SM believes that given the above risks		
		consideration should be given to pushing		
		back the transitional market go-live at least		
		a few months. SMs system development		
		plan would enable more robust		
		communications to be introduced in July		
		2012 however this would also require		
		generators systems to match.		
57	System	7A.1.1A	The IMO has the statutory responsibility to	No rule change required.

	Submitter	Comment / Change Requested	IMO Response	As Amended
		As a matter of governance the proposed commencement date for commencement of the Balancing Market should not be specified in the rules rather it should be a date determined by the Minister	administer the Market Rules. One of the IMO's functions as administrator of the Market Rules is to develop and implement	
58	System Management	7A.1.2  As a matter of governance there appears to be no clear Heads of Power to include the Balancing Market Objectives in the Rules. (In contrast the Electricity Industry Act 2004 gives a heads of power to the current market objectives).	The Balancing Market Objectives are consistent with and subservient to the	No rule change required.
59	System Management	6.16A.2  Drafting issue - It is unclear how an unscheduled generator could have an upward Out of Merit Generation value.		No rule change required.
60	System Management	<b>5.9.3(b)</b> Drafting issue - The clause 7.13.1(cAA) does not exist. Is 7.13.1(cC) the correct clause	The incorrect reference has been used, however the IMO considers that the correct	5.9.3 The information provided by the IMO to a Network Operator under clause 5.9.2 must include, for each relevant Facility and Trading Interval:

	Submitter	Comment / Change Requested	IMO Response	As Amended
				(b) the MWh quantity by which the Facility was instructed by System Management to increase its output or reduce its consumption, as specified in clause 6.17.6(e)(i)7.13.1(eAAdA);
61	System Management	<b>7B.3.1</b> The proposed clause may result in market Inefficiencies. Specifically it is unclear why the Verve Portfolio is excluded. If the Verve portfolio price is less expensive than the other prices it should be chosen	proposed Market rules to reflect that there is no need for a conversion to loss adjusted	7B.3.1 [Blank]
62	System Management	9.9.1(b) The proposed clause as drafted may result in market inefficiencies. The LFR(m) used in clause 9.91(b) is a monthly quantity. In the new proposed marketl the LFR will vary on a 6 hourly block basis. This should be LFR(t) or else the calculation will be inefficient.	has incorporated System Management's suggestion.	
63	System Management	3.9.1(c)	Facilities and as such are not eligible to provide LFAS at this stage. However it is contemplated that this Facility type may be included in the future, but until a Facility of this type exists, in the market it is not economically efficient or feasible to create a market design to include and address the	No rule change required.

	Submitter	Comment / Change Requested	IMO Response	As Amended
		including sustainable	Load. On this basis the IMO considers its exclusion is consistent with the Wholesale Market Objectives. For more information refer to comment 35 above.	
64	System Management	7B.12.14 It is noted there is no price cap for LFAS submission. System management believes no caps can leads to unreasonable costs being imposed on the market. This exposes the market to excessive costs as "a reasonable expectation" is difficult to determine ahead of time as it depends on future market outcomes.		No rule change required.
65	System Management	Glossary The proposed clause as drafted may result in market inefficiencies. When two generators bid an equal offer price (non loss factor adjusted) the offer price must be divided by the loss factor to give the correct price stack so that the generator with the lowest loss factor (the more expensive one) is higher in the stack. The adjustment should also be in the rule not the glossary because it limits the price.	Market Rule amendment 7A3.1 does require the IMO to loss adjust the prices used to construct the BMO.	No rule change required.
66	System Management	7B.2.14	,	No rule change required.
67	System Management	<b>7B.3.7</b> & <b>7B.3.8</b> Drafting - These are dispatch obligations and should be in Chapter 7: Dispatch	These are dispatch obligations logically sit	No rule change required.
68	System	9.9.1(b)	The IMO has amended drafting for the	

	Submitter	Comment / Change Requested	IMO Response	As Amended
	Management	Drafting - The Backup Upward LFAS price and the Backup Downward LFAS price are not defined in the Glossary		
69	System Management	7.10.7 Drafting - MR 7.10.7 continues to refer to deviations within the Tolerance Range (when referring back to MR 7.10.5) but the only deviation referred to in MR 7.10.5 which has not been deleted refers to deviations outside of the Tolerance Range. Therefore references to deviations within the Tolerance Range in MR 7.10.7 appear redundant.	deleted.	7.10.7 Where the Market Participant does not comply with the request referred to in clause 7.10.5, System Management:  (a) unless the deviation is within the Tolerance Range, must, in the time and form and manner prescribed by the IMO in the IMS Interface Document Procedures, report the failure to comply with the request referred to in clause 7.10.5, to the IMO. System Management must include in the report:
70	System Management	Glossary Drafting - The reference to MW should be replaced by MWh The proposed clause as drafted may result in market inefficiencies It is unclear as to why value this is not reviewable or its origin		No rule change required.
71	System Management	7A.2.10 The requirement to reflect commissioning plans in balancing submissions and keep them updated through commissioning may be unrealistic in terms of the time frame for such submissions.	commissioning plans. The market is informed of all planned Commission Tests	No rule change required.

	Submitter	Comment / Change Requested	IMO Response	As Amended
			commission using the Balancing Market.	
72	System	7.7.3A(d)	The IMO is of the view that the change is	No rule change required.
	Management	Drafting - MR 7.7.3A(d) - the reference to	not needed as the definition of "Test" is to	
		"Test" should be "Test under these Market	specific tests under the Market Rules.	
		Rules" to be consistent with the definition of		
		"Operating Instruction".		
73	System	7.11.6AA	The IMO notes that System Management	If any information that would
	Management	System Management (SSOC) should not	already has an obligation under the Market	otherwise be released under
		have exposure to risk of disclosing	Rules to not disclose confidential	clauses 7.11.6(d), (dA), (e), (f) or
		confidential information. System	information under chapter 10. However the	(g) is not Cconfidential or has a
		Management's response to this clause will	IMO has amended this clause to clarify the	confidentiality status that would
		result in Dispatch Advisories containing less	·	-
		useful information that they might otherwise	ļ.	
		contain with resultant limitation on the ability	, ,	
		of the market to respond	guidance and comfort in relation to its	(a) release that information to
			obligations.	the IMO but, subject to paragraph (b), ensure that
				the Dispatch Advisory
				contains information of
				only a general or
				aggregate nature so that
				the information publically
				released is not
				<u>Cconfidential;</u> (b) include in the Dispatch
				Advisory the details of any
				circumstance that has
				given rise to System
				Management issuing the
				<u>Dispatch Advisory,</u>
				including:
				i. the name of the
				Facility where that Facility
				has caused or materially
				contributed to the

	Submitter	Comment / Change Requested	IMO Response	As Amended
				circumstance giving rise to
				the Dispatch Advisory;
				ii. any likely change
				in the quantities of energy
				that would, but for the
				circumstances, have been
				dispatched under the
				Market Rules; and
				<u>iii. the quantities of</u>
				<u>energy likely to be</u>
				dispatched Out of Merit.
74	System	2.10.2A	The assumption is correct. The reference	
	Management	Drafting - The amending rules propose that	•	
		MR "2.10.1A" be a protected provision. This	2.10.2A.	
		provision does not exist. It is assumed this		
		should refer to MR 2.10.2A.		
75	System	7.11.1	·	7.11.1 A Dispatch Advisory is a
	Management	Drafting - The reference to "facilities" in MR	accordingly.	communication by System
		7.11.1 should be capitalised.		Management to Market
				Participants, Network Operators and the IMO that there has been.
				or is likely to be, an event that will
				require a significant deviation from
				Resource Plans, dispatch of
				Facilities Out of Merit or will
				restrict communication between
				System Management and any of
				the Market Participants, Network
				Operators, or the IMO.
				[Note: the deletion of Resource
				Plans is as a result of Synergy
				submission Item 9]

	Submitter	Comment / Change Requested	IMO Response	As Amended
76	System Management	<b>7.11.6(dA)</b> Drafting - The reference to MR "7A.5.13" in MR 7.11.6(dA) is incorrect (MR 7A.5.13 does not exist).		7.11.6 Subject to 7.11.6AA, a A Dispatch Advisory must contain the following information:  (dA) where System Management is to release a Dispatch Advisory under clause 7.11.5(g), details of the estimated variation from the Out of Merit quantities determined under clause 7A.5.13, reasons for the deviation from the BMO and all
77	System	7A.1.5	Clause 7A 1.5 has been undated	relevant information about the deviation; 7A.1.5 The IMO must create
	System Management	-	Clause 7A.1.5 has been updated.	mMarket pProcedures for Balancing Facility Requirements specifying technical and communication criteria that a Balancing Facility, or a type of Balancing Facility, must meet, including:
78	System Management	<b>7B.2.17</b> Drafting - The reference to MR "7B.2.16" in MR 7B.2.19 should be 7B.2.17.	Clause 7B.2.19 has been updated.	7B.2.19 Where the IMO has received advice under clause 7B.2.167, the IMO must, as soon as practicable, notify System Management the quantity of LFAS the LFAS Facility is able to provide in the Trading Interval according to the advice received by the IMO.
79	System Management	It is not clear how plant in the VE balancing portfolio are to be treated during	Verve Energy will need to construct its portfolio Balancing Submissions to ensure	No rule change required.

Submitter	Comment / Change Requested	IMO Response	As Amended
	commissioning. Verve Energy offer their portfolio to the market as a single facility but at certain times would have some units commissioning and others not. How would VE construct their offers at such times? How would System Management dispatch the VE portfolio?	that a Facility can be commissioned, within the cleared portfolio quantity, in accordance with the approved commissioning plan. System Commissioning of the Facility would	
Management	System Management would like to see details of Ancillary Services costs published including the costs of procuring additional ancillary services to cover commissioning generators. System Management believes it is in the market's interests to have these costs transparent.	The proposed Amending Rules have been updated accordingly.	10.5.2 The IMO must set the class of confidentiality status for the following information under clause 10.2.1, as Public:  (a) SCADA data by Facility;  (b) the sum of each LF_Up_Market_Payment referred to in clause 9.9.2(a) that was made in a Trading Month;  (c) the sum of each LF_Down_Market_Payment referred to in clause 9.9.2(b) that was made in a Trading Month;  (d) the sum of each total Trading Month LF_Market_Payment referred to in clause 9.9.2(d) that was made in a Trading Month;  (e) the payment referred to in clause 9.9.2(e) for each Trading Interval in a Trading Month;  (f) the payment referred to in clause 9.9.2(f) for each Trading Interval in a Trading Month;

Submit	ter Comment / Change Requested	IMO Response	As Amended
			Interval in a Trading Month;
			(g) the payment referred to in clause 9.9.2(g);
			(h) the cost referred to in clause 9.9.2(h) for each Trading Interval in a Trading Month;
			(i) the cost referred to in clause 9.9.2(i) for each Trading Interval in a Trading Month;
			(j) the cost referred to in clause 9.9.2(m);
			(k) the cost referred to in clause 9.9.2(o); and
			(I) the cost referred to in clause 9.9.2(p).

## **Submission from Verve Energy**

	Submitter	Comment / Change Requested	IMO Response	As Amended
1	Verve	Verve Energy confirms that it fully supports	Noted.	No rule change required.
	Energy	the introduction of a competitive Balancing		
		market and, subject to satisfactory		
		resolution of the issues raised in this		
		submission, the associated amending rules.		
2	Verve	Fundamentally Verve Energy considers that	Verve Energy has greater flexibility than	No rule change required.
	Energy	its bidding arrangements should be the	other Market Participants in participating	
		same as other participants'.	in Balancing on a portfolio basis,	
			particularly because it has flexibility in	

Submitter	Comment / Change Requested	IMO Response	As Amended
		deciding with System Management how	
		Facilities within the Verve Energy	
		Balancing Portfolio are to be operated to	
		meet BMO commitments.	
		Verve stand alone facilities have the same	
		bidding arrangements as other	
		participants. The IMO notes that the	
		Market Power Review <sup>11</sup> specifically notes	
		that the ability of IPPs to update their	
		Balancing Submissions after the window	
		has closed for Verve Energy Balancing	
		Portfolio submissions will "further curb	
		Verve's dominance" and "appears to be	
		an appropriate measure in the context of	
		Verve's large size".	
		Further, the IMO notes that the new	
		Balancing Market will provide	
		considerably greater flexibility to Verve	
		Energy. For example:	
		the initial portfolio submission will be	
		presented well after the current	
		submission deadline for the STEM, and	
		allow Verve Energy to consider the	
		Dispatch Plan prepared by System	
		Management using later information (fuel,	
		demand, wind and Resource Plans);	
		regular portfolio resubmission	
		opportunities are provided (up to seven	
		times for some Trading Intervals, plus	
		additional opportunities in the event of a	
		Forced Outage); and	

<sup>&</sup>lt;sup>11</sup> For further details refer to the IMO webpage: <a href="http://www.imowa.com.au/f139,1751332/IMO">http://www.imowa.com.au/f139,1751332/IMO</a> Market Power Review - Market Reform v1 0.pdf

	Submitter	Comment / Change Requested	IMO Response	As Amended
3	Verve Energy	Placing a hard limit of 35 price quantity pairs for Verve Energy's balancing portfolio will potentially limit the achievement of that objective. Further, the setting of the limit based on Verve Energy's recent STEM behaviour is, in Verve Energy's view, flawed.  The current STEM limit that applies allows significantly more price quantity pairs than are currently utilised and therefore clearly provides appropriate flexibility to' accommodate changing circumstances.	the opportunities to split facilities from the Verve Energy Balancing Portfolio and participate on a stand-alone basis is provided.  The IMO considers that the proposed arrangements provide an appropriate balance between flexibility and potential concerns about the dominant position of the Verve Energy portfolio in the Balancing Market.  The IMO contends that given Verve Energy's current STEM requirement to bid at SRMC and the fact that the maximum number of tranches used in the last 14 months is 32, the proposed limit of 35 tranches appear sufficient to allow Verve Energy to include the new obligations around Ancillary Service provision in its Balancing Submissions.  The IMO further notes that the allowable number of tranches increases by 10 for each Facility that moves from the portfolio to become a Stand Alone Facility. Therefore, Verve Energy has a potential for as many as 330 tranches available to it	No rule change required.
	Maria	Maria Otta I Alexa Facilities Co. (1)	(33 facilities * 10 tranches each).	No. 10 de activitation de la constant
4	Verve Energy	Verve Stand Alone Facilities - One of the reasons given by the IMO for applying a	The IMO considers that the proposed provisions take into account potential	No rule change required.
		hard limit on the number of price quantity pairs available to Verve Energy for its	impacts on system security due to separating Facilities from the portfolio, for	
		balancing portfolio is to encourage Verve	example the requirement in clause 7A.4.2	
		Energy to shift facilities out of its portfolio	for the IMO to reject a proposed Stand	
		and to bid them individually. The hybrid	Alone Facility if System Management	

Submitter	Comment / Change Requested	IMO Response	As Amended
Submitter	market design, with Verve Energy maintaining a portfolio, was retained for a number of reasons not the least being system security considerations and that the benefits that may have been accrued from the alternative design did not outweigh the cost and complexity of its implementation. While the provision of the ability to remove facilities is appropriate and the lack of compulsion a sensible outcome, Verve Energy will apply due consideration to the consequences of such action before proceeding. WEM development is but one aspect of the broader electricity supply picture. Overly zealous encouragement of Verve Energy to diminish its portfolio may be detrimental to electricity supply security. IMO is urged to ensure that its market development aspirations are cognisant of, and commensurate with, appropriate consideration of that matter.	considers it will impact System Management's functions (which include maintaining system security).  As the new Balancing and LFAS markets mature and is exposed to more competition the IMO does not consider that Verve offering its generation facilities on a portfolio basis will remain a requirement to maintain system security.	AS Amended
5 Verve Energy	The requirement to bid at SRMC where it relates to market power currently exists in the STEM and has been carried over to the proposed balancing marketit is presumed that IMO considers that the SRMC requirement applies to Verve Energy What is less clear is to what extent the requirement will apply to other participants.	The draft proposed Amending Rules include provisions relating to market power and Balancing Submissions at SRMC prices [MR2.16.9(b)ii., MR2.16.9B(a) and MR 7A.2.6] which make no distinction between IPPs and Verve Energy. Similar provisions exist in relation to LFAS and STEM submissions [MR2.16.9(c)iii., MR2.16.9B(b) and MR 7B.2.14].	No rule change required.
6 Verve Energy	Verve Energy's position remains that the balancing component should be introduced	The IMO does not agree that the implementation of the LFAS market	No rule change required.

Submitter	Comment / Change Requested	IMO Response	As Amended
Cubilities	first with LFAS market introduction delayed until the balancing market is well established. This would significantly reduce the complexity and cost faced by System Management and would reduce the risk of a delayed or ineffective commencement of the balancing market due to System Management IT issues.	should be postponed. LFAS is an integral part of the new market design and the cost savings associated with concurrent implementation warrant any added complexity for Market Participants.  The IMO does not believe the concurrent implementation will pose any risk of implementation delays or result in an inefficient commencement of the Balancing Market.	As America
7 Verve Energy	Verve Energy's balancing bids should always be determined cognisant of the amount of LFAS it will be providing. Accordingly the window for Verve Energy's portfolio Balancing bid should be, say, one hour after the LFAS market outcome is determined and published.	The IMO agrees with Verve Energy's submission and has updated the proposed Amending Rules accordingly. The IMO notes that in the proposed Amending Rules (as presented in the Rule Change Proposal) there was an error in the LFAS horizon and LFAS Gate Closure times. The modified amendments now reflect the resubmission times as outlined in the document "LFAS Design – CEO recommendations".12	LFAS Gate Closure: Means, for the 12 Trading Intervals in an LFAS Horizon, the point in time which is 23 hours immediately before the Balancing Gate Closure for the first of those Trading Intervals  LFAS Horizon: Means:  (a) from 31 March 2012the day before Balancing Commencement Day and to 4:00AM on 1 April 2012Balancing Market Commencement Day, the 6 hour period from 8:00AM to 2:00PM occurring on the Trading Day of 1 April 2012Balancing Market Commencement Day;  (b) on and from 10:00 AM on 1 April 2012Balancing Market Commencement Day, the 6 hour period from 2:00PM to 8:00PM of

\_

<sup>&</sup>lt;sup>12</sup> A copy may be found on the following IMO website: <a href="www.imowa.com.au/f4768,1615220/20110804">www.imowa.com.au/f4768,1615220/20110804</a> - LFAS design.pdf

Su	ubmitter	Comment / Change Requested	IMO Response	As Amended
				the Trading Day 1 April
				2012Balancing Market Commencement Day;
				Commencement Day,
				(c) on and from 4:00 PM <del>2 April</del>
				2012the day after Balancing
				Commencement Day, the 6 hour
				period from 8:00PM to 2:00AM of the Trading Day 2 April
				2012 occuring the day after
				Balancing Market
				Commencement Day:
				(d) are and from 40:00 DM 0 A di
				(d) on and from 10:00 PM 2 April 2012the day after Balancing
				Market Commencement Day, the
				6 hour period from 2:00AM to
				8:00AM of the Trading Day 3-April
				2012two days after Balancing
				Commencement Day;
				(e) on and from 32:30AM of each
				subsequent Trading day, the 6
				hours from 8:00AM the beginning
				of the next Trading Day to 2:00PM that Trading Day;
				2.00 FW that Trading Day,
				(f) on and from 98:30AM of each
				subsequent Trading Day, the 6
				hour period from 2:00PM of that
				Trading Day to 8:00PM that Trading Day;
				Trading Day,
				(g) on and from 32:30PM of each
				subsequent Trading Day, the 6
				hours from 8:00PM of that
				Trading Day to 2:00AM that

	Submitter	Comment / Change Requested	IMO Response	As Amended
				Trading Day; and
				(h) on and from 89:30PM of each subsequent Trading Day, the 6 hour period 2:00AM of that Trading Day to 8:00AM the next Trading Day.
				7A.2.9(d) may update its Balancing Portfolio Supply Curve in relation to any Trading Interval in the Balancing Horizon for which Balancing Gate Closure has not occurred:
				i. plus 2 hours by submitting it to the IMO immediately before 6:00PM; or
				ii. otherwise by submitting it to the IMO within 1 hour after LFAS Gate Closure;
8	Verve Energy	Proposed clauses 7A.2.9(b) and (c) require Verve Energy to identify the Facilities assumed to be providing LFAS and the other Ancillary Services.	The purpose of this clause is to enable the assumptions Verve Energy makes in developing the Price-Quantity Pairs in its Balancing Submission and LFAS submissions to be monitored.	7A.2.9 Verve Energy, in relation to the Verve Energy Balancing Portfolio:
		It may be more appropriate for Verve		( <u>a)</u>
		Energy to list the plant that is capable of, and likely to be, delivering Ancillary Services.	faces a number of uncertainties in the development of its portfolio submissions	(b) must indicate in a manner and form presented prescribed by the IMO:
		It is presumed that the intent of the requirement is to ensure that Verve Energy is not inflating its balancing prices by	and what System Management ultimately	i. which quantities in the Balancing Portfolio Supply Curve it has priced at the Minimum

	Submitter	Comment / Change Requested	IMO Response	As Amended
	Submitter	'allocating' Ancillary Services to 'inappropriate' plant. Verve Energy will be very happy to work with IMO to arrive at an appropriate arrangement that will give IMO comfort that that is not happening.	notes. The IMO has amended clauses	As Amended  STEM Price are for Facilities that are to provide LFAS;  ii. the-Facilities that-which are likely to provide LFAS; and  iii. for each completed Trading Interval, which Facilities actually provided the LFAS in the Trading Interval;  (c) must:  ii. advise the IMO in a manner and form prescribed by the IMO, whichthe Facilities which are likely to provide the quantities in clause 7A.2.9(c)(i); and  iii. for each completed Trading Interval, which Facilities actually provided the LFAS in the Trading Interval;
9	Verve Energy	The process for conversion of LFAS enablement to MWh via Rules 6.17.3 (e) and 6.17.4 (e) is unclear and may lead to an erroneous outcome. IMO is urged to consider the intent and application of these Rules.	The IMO has clarified the conversion of the LFAS enablement band in clauses 6.17.3 (e) and 6.17.4(e). The IMO has made the same clarification in clauses 6.16A.1(b)iii.1, 6.16A.3(b)iii.1, 6.16B.1(b)ii.2 and 6.16B.2(b)ii.2.	6.16A.1 The Upwards Out of Merit Generation in a Trading Interval for a Balancing Facility that is a Scheduled Generator equals: (b) zero where: iii. the Sent Out Metered Schedule less the Maximum

Submitte	r Comment / Change Requested	IMO Response	As Amended
			Theoretical Energy Schedule is
			less than the sum of:
			1 if instructed by System
			Management to provide LFAS,
			the Upwards LFAS Enablement,
			divided by two so that it is
			expressed in MWh; and
			6.16A.3 The Downwards Out of
			Merit Generation in a Trading
			Interval for a Balancing Facility
			equals:
			(b) zero if:
			(iii) the Theoretical Energy
			Schedule less the Sent Out
			Metered Schedule is less than the
			sum of:
			1 if instructed by System
			Management to provide LFAS,
			the Downwards LFAS
			Enablement, divided by two so
			that it is expressed in MWh; and
			6.16B.1 The Upwards Out of Merit
			Generation in a Trading Interval
			for the Verve Energy Balancing
			Portfolio equals:
			(1)
			(b) zero if:

Submitter	Comment / Change Requested	IMO Response	As Amended
Susmitter	Comment / Change Requested		ii. the sum of the relevant facility Sent Out Metered Schedules less the Theoretical Portfolio Dispatch Schedule is less than the sum of:  2 if Facilities within the Verve Energy Balancing Portfolio were instructed by System Management to provide LFAS, the sum of Upwards LFAS Enablement and Upwards LFAS Backup Enablement, both divided by two so that they are expressed in MWh; and 6.16B.2 The Downwards Out of Merit Generation in a Trading Interval for the Verve Energy Balancing Portfolio equals:
			ii. the Theoretical Energy Schedule of the Verve Energy Balancing Portfolio less the sum of the relevant facility Sent Out Metered Schedules is less than the sum of:  2 if Facilities within the Verve Energy Balancing Portfolio were instructed by System

	Submitter	Comment / Change Requested	IMO Response	As Amended
	Submitter	Comment / Change Requested	IMO Response	Management to provide LFAS, the sum of the Downwards LFAS Enablement plus the Downwards LFAS Enablement plus the Downwards LFAS Backup Enablement, both divided by two so that they are expressed in MWh; and  6.17.3(e) The Non-Qualifying Constrained On Generation for the Balancing Facility equals the sum of any sent out energy (in MWh) from a Network Control Service Contract dispatched on by System Management and any Upwards LFAS Enablement, divided by two so that it is expressed as sent out MWh, which the Balancing Facility was instructed to provide by System Management;  6.17.4(e) The Non-Qualifying Constrained Off Generation for the Balancing Facility equals the sum of any sent out energy (in MWh) on from a Network Control Service Contract dispatched off by System Management and any Downwards LFAS Enablement, divided by two so that it is expressed as sent out MWh, which the Balancing Facility was instructed to provide by System
				Management.
10	Verve	In principle, Verve Energy supports the		No rule change required.
	Energy	intent of the proposed changes - that is to	pursuing the proposed rationalisation of	

	Submitter	Comment / Change Requested	IMO Response	As Amended
		provide greater transparency and provision of data that will better inform participants. That sentiment is tempered by two requirements however:	the Confidentiality classes at this time.	
		the information provision should be equitable with all participants treated equally; and		
		as suggested in the Market Power report discussed earlier, publication of "more or improved information" is encouraged "except to the extent that the release of such information is found to be detrimental		
		to competition or the commercial interests of participants"		
11	Verve Energy	Verve Energy reconfirms its support for the development of a competitive balancing market but urges the IMO to further contemplate whether the measures that it is imposing on Verve Energy are necessary in relation to not only the appropriate development of the WEM but also in the best interests of Western Australian	Noted.	No rule change required.

# APPENDIX 2: ADDITIONAL CHANGES TO THE AMENDING RULES

This Appendix outlines further changes required to Amending Rules from those published by the IMO on 23 September 2011 that have been initiated by the IMO or have resulted from matters raised by Market Participants. Note that the IMO will rationalise the clause numbering in the Final Rule Change Report once the proposed Amending Rules are settled, to ensure all clauses are numbered consistently and consecutively rather than in the format "1A.1A.1(Aa).Ai".

The IMO proposes to make the following additional amendments to the original proposed Amending Rules (deleted text, added text):

	Chapter	Clause	As amended	Comments (if any)
1	All	Various	The IMO has made various minor and typographical changes to improve the integrity of the proposed Amending Rules, which appear in the attached proposed Amending Rules.	
2	All	Various	the Electricity Networks Corporation Western Power, the Electricity Retail Corporation Synergy, the Electricity Generation Corporation-Verve Energy	Amended for consistency.
3	All	Various	The IMO has updated clauses 3.13.1, 3.14.1, 3.14.2, 3.22.1, 3.22.2, 3.22.3, 9.7.1, 9.9.1, 9.9.2, 9.9.3, 9.9.3A, 9.9.3B, 9.9.4 and 9.11.1 to ensure the settlement formula are accurate.	
4	2 (Administration)	2.1.2(e)	[Blank]to do anything that the IMO determines to be conducive or incidental to the performance of the functions set out in this Market Rule to do anything that the IMO determines to be conducive or incidental to the performance of the functions set out in this Market Rule;	Amended for clarity.
5	2 (Administration)	2.10.17		This proposed rule has been deleted as provisions for the extension of Procedure Change Process timelines, have been introduced under RC_2011_12.
6	2 (Administration)	2.10.18		This proposed rule has been deleted as provisions for the extension of Procedure Change Process timelines, have been introduced under RC_2011_12.

	Chapter	Clause	As amended	Comments (if any)
7	2 (Administration)	2.10.19		This proposed rule has been deleted as provisions for the extension of Procedure Change Process timelines, have been introduced under RC_2011_12.
8	2 (Administration)	2.16.2(hC)	any substantial variations in Balancing price or quantities relative to recent past behaviour;	Amended for clarity.
9	2 (Administration)	2.16.2(i)	the capacity available through Balancing from Balancing Facilities, Generators and Non-Scheduled Generators and Dispatchable Loads and Demand Side Management;	Amended for clarity.
10	2 (Administration)	2.16.4(g)	exploration of the key determinants for high prices in the STEM, and in Balancing and in the LFAS Market, including determining correlations or other statistical analysis between explanatory factors that the IMO considers relevant and price movements; and	Amended for clarity.
11	2 (Administration)	2.16.9B(a)	Portfolio Supply Curve or its Balancing Submission may net reflect exceed the Market Generator's reasonable expectation of the short run marginal cost of generating the relevant electricity; or	Amended for clarity.
12	2 (Administration)	2.16.9B(b)	LFAS Submission may exceed the Market Generator's reasonable expectation of the incremental change in short run marginal cost incurred by the LFAS Facility in providing the relevant LFAS,	Amended to ensure consistency with clause 7B.2.14.
13	2 (Administration)	2.16.9G	Where the Economic Regulation Authority determines that:  (a) prices in the Portfolio Supply Curve or in a Balancing Submission, subject to the investigation, did not reflect the Market Generator's reasonable expectation of the short run marginal cost of generating the relevant electricity; or (b) the LFAS Submission exceeded the Market Generator's reasonable expectation of the incremental change in short run marginal cost incurred by the LFAS Facility in providing the relevant LFAS, the Economic Regulation Authority must request that the IMO applies to the Electricity Review Board for an order for	Amended for consistency with clause 2.16.9B.

	Chapter	Clause	As amended	Comments (if any)
			contravention of clause 6.6.3.	
14	2 (Administration)	2.16.12(b)(i v)	iv. <u>in</u> Balancing;	Amended for clarity.
15	2 (Administration)	2.34.7C(b) and (c)	(b) advise the IMO whether it should accept the proposed change or reject it on the basis if the proposed changed LFAS Standing Data will not meet the LFAS Facility Requirements, advise the IMO to accept the proposed change, including any enablement and/or quantity restrictions that are to apply to the Facility for LFAS Submissions; or (c) advise the IMO of any enablement and/or quantity restrictions that are to apply to the Facility for LFAS Submissions if the proposed changes to the LFAS Standing Data are accepted; and if the proposed changed LFAS Standing Data will not meet the LFAS Facility Requirements, advise the IMO to reject the proposed change and (d) provide the IMO with System Management's reasons for accepting or rejecting the proposed change to LFAS Standing Data.	Amended for clarity.
16	2 (Administration)	2.37.4(c)	the correlation between the metered amounts of electricity Relevant Dispatch Quantity and MCAPBalancing Price;	Amended for clarity.
17	2 (Administration)	2.37.4(fa)	the historical, and estimated expected, level of payments under clause 9.8.1, or an estimate of the Market Participant's expected level of payments under clause 9.8.1 where no historical payment data is available;	Amended for clarity.
18	3 (Power System Security and Reliability)	3.21AA	3.21AA [Blank] Equipment Tests 3.21AA.1 An Equipment Test ("Equipment Test") is a test conducted by a Market Participant of the ability of a generating system to: (a) verify Standing Data for a Facility in accordance with clause 2.34.6; (b) resolve technical performance issues; or (c) confirm capability of Ancillary Services. 3.21AA.2 A Market Participant may apply to System Management for an Equipment Test no later than 12PM on the Scheduling Day for the next Trading Day. 3.21AA.3 An application for an Equipment Test must be made in	Equipment Test provisions deleted as outlined in section 5.1 of this report.  The use and references to clause 3.21AA and Equipment Test in clauses 7.10.2, 7.10.5A(b)(ii) and 7.12.1(e) have also been deleted. Further, the term "Equipment Test" as used in clauses 7.13.1(h), 4.11.1(h)i and 4.11.1(h)ii has also been deleted as has the definition of "Equipment Test".

Chapter	Clause	As amended	Comments (if any)
		accordance with the Power System Operation Procedure and	
		contain:	
		(a) the name and location of the Facility to be tested;	
		(b) the commencement time of all Trading Intervals during which	
		testing will be conducted; and	
		(c) details of the test to be conducted, including an indicative	
		test program.	
		3.21AA.4 System Management must notify the Market	
		Participant of whether System Management has approved an	
		Equipment Test by no later than 4PM on the Scheduling Day.	
		3.21AA.5 System Management must not show bias towards a	
		Market Participant concerning the approval of Equipment Tests.	
		3.21AA.6 In deciding whether to approve a proposed	
		Equipment Test, System Management must have regard to	
		whether:	
		(a) there is adequate time to properly consider the application;	
		(b) outages approved pursuant to clause 3.19 and tests	
		approved pursuant to clause 4.25.8 would be affected by the	
		intended Equipment Test; and	
		(c) the test can be accommodated at the proposed time without	
		undue risk to Power System Security or Power System	
		Reliability.	
		3.21AA.7 System Management must document the procedure it	
		follows in approving Equipment Tests in the Power System	
		Operation Procedure and System Management and Market	
		Participants must follow that documented Market Procedure	
		when planning and conducting Equipment Tests.	
		3.21AA.8 If, having approved an Equipment Test, System	
		Management becomes aware that:	
		(a) the conduct of the test at the proposed time would pose a	
		threat to Power System Security or Power System Reliability; or	
		(b) the Equipment Test is no longer required, then it may cancel	
		its approval of the Equipment Test at any time, including after	

	Chapter	Clause	As amended	Comments (if any)
19	4 (Reserve Capacity Rules)	4.11.12	the start of the Equipment Test, and must notify the Market Participant of the cancellation. 3.21AA.9 In conducting an Equipment Test a Market Participant must conform to the test plan approved by System Management. 3.21AA.10 If a Market Participant conducting an Equipment Test cannot conform to the test plan approved by System Management then it must inform System Management as soon as practicable. The IMO must not assign Certified Reserve Capacity to a Balancing Facility with a rated capacity equal to or greater than 10MW unless the IMO is satisfied the Facility is likely to be able to meet the Balancing Facility Requirements or those requirements as modified by the conditions or suspensions imposed by the IMO under clause 7A.1.8.	
20	4 (Reserve Capacity Rules)	4.26.2	$SF(p,m,d,t) = Max(RTFO(p,d,t), RCOQ(p,d,t) - A(p,d,t)) + \frac{Sum(f \in F, + Max(0,B(f,d,t) - C(f,d,t))}{Sum(f \in F, + Max(0,B(f,d,t) - C(f,d,t))} - RTFO(f,d,t)$	
21	6 (The Energy Market)	6.5C.7(a)	(a) Where: Target = the sum of the targets provided energy quantities submitted by the Market Participants under clause 6.11.1(b)(iii)	Amended for clarity.
22	6 (The Energy Market)	6.5C.7(b)	(b) Target MW * LF = (NCP+DQ - NonSchGen - Shortfall) * 2+DQ± Tol	Correction to formula.
23	6 (The Energy Market)	6.11.1(b)iii	the target energy to be sent-out or consumed during each Trading Interval of the Trading Day included in the submission, where this amount:  1. must be expressed in units of MWh;  2. must be expressed to a precision of 0.001 MWh;  31. must be zero if the Facility is expected not to operate during the Trading Interval; and	Amended for clarity.

	Chapter	Clause	As amended	Comments (if any)
			42. must not exceed the expected capability of the Facility at	
			that time, allowing for de-ratings and outages; and	
24	6 (The Energy	6.11.1(e)	other than for Verve Energy, any shortfall in MWh for each	Amended to provide clarity on the quantity to be
24	Market)	, ,	Trading Interval between the net energy scheduled in the	provided.
	,		Resource Plan Submission and the Net Contract Position of the	ľ
			Market Participant.	
	6 (The Energy	6.11.2(a)	it must conform to the format specified by the IMO under in	Amended for clarity.
25	Market)	0.11.2(α)	clause 6.11.1;	Amended for clarity.
00	6 (The Energy	6.15.1	Maximum and Minimum Theoretical Energy Schedule	Amendments to reflect the introduction of a
26	Market)		The Maximum Theoretical Energy Schedule in a Trading	maximum and a minimum theoretical energy
	Markoty		Interval is:	schedule, to avoid confusion between STEM
			(a) for a Balancing Facility which is a Scheduled Generator, the	Bids and Offers and Balancing Submissions,
			amount which is the lesser of:	and to correct an inconsistency in the use of
			i. the maximum amount of sent out energy (in MWh) which	SOI Quantity.
			could have been dispatched by the Balancing Facility operating	
			at its Ramp Rate Limit in the Trading Interval. The amount must	
			be derived from the Bids and Offers Balancing Price-Quantity	
			Pairs in respect of the Balancing Facility with a Loss Factor	
			Adjusted Price less than or equal to the Balancing Price, taking into account the Ramp Rate Limit associated with the Bid or	
			Offer and the Balancing Facility's SOI Quantity and Ramp Rate	
			Limit; and	
			ii. where the Balancing Facility is subject to a Planned Outage, a	
			Forced Outage or a Consequential Outage, - the maximum	
			amount of sent out energy (in MWh) which could have been	
			dispatched given the Available Capacity for that Trading	
			Interval-;	
			(b) for a Balancing Facility which is a Non-Scheduled Generator:	
			i. if a Dispatch Instruction was issued to the Balancing Facility to	
			decrease its output, System Management's estimate of the	
			maximum amount of sent out energy (in MWh) which the	
			Balancing Facility would have supplied in the Trading Interval	
			had the Dispatch Instruction not been issuedif the Loss Factor	
			Adjusted Price of the Balancing Price Quantity-Pair in respect of	
			the Balancing Facility is greater than or equal to the Balancing	
			Price, then the Sent Out Metered Schedule; and	

	Chapter	Clause	As amended	Comments (if any)
	·		ii. otherwise the Sent Out Metered Schedule for the Balancing	
			Facilityminimum amount of sent out energy (in MWh) which the	
			Facility could have generated in the Trading Interval if the	
			Facility had been dispatched downwards at its Ramp Rate Limit	
			from its SOI Quantity; or	
			(c) for the Verve Energy Balancing Portfolio, the maximum	
			amount of sent out energy (in MWh) which could have been	
			dispatched in the Trading Interval from Balancing Price-Quantity	
			Pairs within the Balancing Portfolio Supply Curve with an	
			associated price less than or equal to the Balancing Price,	
			taking into account the Portfolio Ramp Rate Limit and the SOI	
			Quantitysent out MW level at the start of the Trading Interval.	
	6 (The Energy	6.15.2	The Minimum Theoretical Energy Schedule in a Trading Interval	A new clause introducing a Minimum
27	Market)	0.13.2	equals:	Theoretical Energy Schedule.
	iviai kei)		(a) for a Balancing Facility which is a Scheduled Generator, the	Theoretical Energy Schedule.
			amount which is the lesser of:	
			i. the maximum amount of sent out energy (in MWh) which	
			could have been dispatched in the Trading Interval from	
			Balancing Price-Quantity Pairs in respect of the Balancing	
			Facility with a Loss Factor Adjusted Price less than the	
			Balancing Price, taking into account the Balancing Facility's SOI	
			Quantity and Ramp Rate Limit; and	
			ii. where the Balancing Facility is subject to a Planned Outage, a	
			Forced Outage or a Consequential Outage, the maximum	
			amount of sent out energy (in MWh) which could have been	
			dispatched given the Available Capacity for that Trading	
			Interval:	
			(b) for a Balancing Facility which is a Non-Scheduled Generator:	
			i. if a Dispatch Instruction was issued to the Balancing Facility to decrease its output and the Loss Factor Adjusted Price of the	
			Balancing Price-Quantity Pair in respect of the Balancing	
			Facility is greater than the Balancing Price, then System	
			Management's estimate of the maximum amount of sent out	
			energy (in MWh) which the Balancing Facility would have	
			supplied in the Trading Interval had the Dispatch Instruction not	
			been issued; and	
			<u>DECH ISSUEU, AHU</u>	

	Chapter	Clause	As amended	Comments (if any)
			ii. otherwise the Sent Out Metered Schedule for the Facility; or	
			(c) for the Verve Energy Balancing Portfolio, the maximum	
			amount of sent out energy (in MWh) which could have been	
			dispatched in the Trading Interval from Balancing Price-Quantity	
			Pairs within the Balancing Portfolio Supply Curve with an	
			associated price less than the Balancing Price, taking into	
			account the Portfolio Ramp Rate Limit and SOI Quantity.	
28	6 (The Energy	6.16A.1	Facility Out of Merit Generation	
20	Market)		6.16A.1 The Upwards Out of Merit Generation in a Trading	
			Interval for a Balancing Facility that is a Scheduled Generator	
			equals:	Introduction of the Maximum Theoretical Energy
			(a) subject to 6.16A.1(b), the Sent Out Metered Schedule less	Schedule (MAX TES).
			the Maximum Theoretical Energy Schedule; or	
			(b) zero where:	
			i. System Management has provided a report to the IMO under	
			clause 7.10.7 and the IMO determines that the relevant Market	
			Participant has not adequately or appropriately complied with a	
			Dispatch Instruction or clause 7.7.1A;	Introduction of the MAX TES.
			ii. the Facility was undergoing a Test or complying with an	
			Operating Instruction; or	Item 9 in Verve submission resulted in a change
			iii. the Sent Out Metered Schedule less the Maximum	to this sub-clause.
			Theoretical Energy Schedule is less than the sum of:	Reflects definitional change.
			1 if instructed by System Management to provide LFAS, the	
			Upwards LFAS Enablement, divided by two so that it is	Introduction of MAX TES.
			expressed in MWh; and	
			2 the applicable Settlement Facility Dispatch Tolerance.	
			6.16A.2. For a Balancing Facility that is a Non-Scheduled	
			Generator, in a Trading Interval, the Upwards Out of Merit	Introduction of Minimum Theoretical Energy
			Generation equals the Sent Out Metered Schedule less the	Schedule (MIN TES).
			Maximum Theoretical Energy Schedule.	
			6.16A.3. The Downwards Out of Merit Generation in a Trading	
			Interval for a Balancing Facility equals:	
			(a) subject to clause 6.16A.3(b), the Minimum Theoretical	

	Chapter	Clause	As amended	Comments (if any)
29	6 (The Energy	6.16B	Energy Schedule less the Sent Out Metered Schedule; or (b) zero if: i. System Management has provided a report to the IMO under clause 7.10.7 and the IMO determines that the relevant Market Participant has not adequately or appropriately complied with a Dispatch Instruction or clause 7.7.1A; ii. the Facility was undergoing a Test or complying with an Operating Instruction; or iii. the Minimum Theoretical Energy Schedule less the Sent Out Metered Schedule is less than the sum of: 1 if instructed by System Management to provide LFAS, the Downwards LFAS Enablement, divided by two so that it is expressed in MWh; and 2 the applicable Settlement Tolerance.  Verve Energy Balancing Portfolio Out of Merit Generation	Introduction of MIN TES.  Item 9 in Verve submission resulted in a change to this sub-clause.
	Market)		Interval for the Verve Energy Balancing Portfolio equals:  (a) subject to clause 6.16B.1(b) the sum of relevant facility Sent Out Metered Schedules less the Maximum Theoretical Energy Schedule for the Verve Energy Balancing Portfolio; or  (b) zero if:  i. System Management has provided a report to the IMO under clause 7.10.7 and the IMO determines that Verve Energy has not adequately or appropriately complied with a Dispatch Order in respect of the Verve Energy Balancing Portfolio; or  ii. the sum of the relevant facility Sent Out Metered Schedules less the Maximum Theoretical Energy Schedule for the Verve Energy Balancing Portfolio Theoretical Portfolio Dispatch Schedule is less than the sum of:  1 any sent out energy dispatched on by System Management from a Network Control Service Contract associated with a Facility within the Verve Energy Balancing Portfolio; or and 2 if Facilities within the Verve Energy Balancing Portfolio were instructed by System Management to provide LFAS, the sum of Upwards LFAS Enablement and Upwards LFAS Backup	Introduction of MAX TES.  Introduction of MAX TES.

at the Portfolio Settlement Tolerance. 6,16B.2. The Downwards Out of Merit Generation in a Trading Interval for the Verve Energy Balancing Portfolio equals: (a) subject to clause 6.16B.2(b), the Minimum Theoretical Energy Schedule jess the sum of relevant facility Metered Schedules; or (b) zero if: i. System Management has provided a report to the IMO under clause 7.10.7 and the IMO determines that Verve Energy has not adequately or appropriately complied with a Dispatch Order; or ii. the Minimum Theoretical Energy Schedule of the Verve Energy Balancing Portfolio less the sum of the relevant facility Sent Out Metered Schedules is less than the sum of: 1 any sent out energy dispatched by System Management from a Network Control Service Contract associated with a Facility within the Verve Energy Balancing Portfolio; and 2 if Facilities within the Verve Energy Balancing Portfolio were instructed by System Management to provide LFAS, the sum of the Downwards LFAS Enablement plus the Downwards LFAS Backup Enablement, both divided by two so that they are expressed in MWh; and 3 if a Load Rejection Reserve Event has occurred, any Load Rejection Reserve Quantity excluding any quantity under clause 6.168 2(b)(iii)(2); and 34 the Portfolio Settlement Tolerance.  Introduction of a Load Rejection Reserve Econcept.		Chapter	Clause	As amended	Comments (if any)
30 6 (The Energy 6.17.1(f) Loss Factor adjusted Verve Energy Balancing Portfolio		Chapter	Clause	Enablement, both divided by two so that they are expressed in MWh; and 3 if a Spinning Reserve Event has occurred, any Spinning Reserve Response Quantity, excluding any quantity under clause 6.16B.1(b)(ii)(2); and 34 the Portfolio Settlement Tolerance. 6.16B.2. The Downwards Out of Merit Generation in a Trading Interval for the Verve Energy Balancing Portfolio equals: (a) subject to clause 6.16B.2(b), the Minimum Theoretical Energy Schedule less the sum of relevant facility Metered Schedules; or (b) zero if: i. System Management has provided a report to the IMO under clause 7.10.7 and the IMO determines that Verve Energy has not adequately or appropriately complied with a Dispatch Order; or ii. the Minimum Theoretical Energy Schedule of the Verve Energy Balancing Portfolio less the sum of the relevant facility Sent Out Metered Schedules is less than the sum of: 1 any sent out energy dispatched by System Management from a Network Control Service Contract associated with a Facility within the Verve Energy Balancing Portfolio; and 2 if Facilities within the Verve Energy Balancing Portfolio were instructed by System Management to provide LFAS, the sum of the Downwards LFAS Enablement plus the Downwards LFAS Backup Enablement, both divided by two so that they are expressed in MWh; and 3 if a Load Rejection Reserve Event has occurred, any Load Rejection Reserve Quantity excluding any quantity under clause 6.16B.2(b)(ii)(2); and	Introduction of Spinning Reserve Quantity concept.
		C /Th a Francis	0.47.4(f)	Long Forter adjusted Venus Francis Delancing Destate	concept.
Market)   Constrained Off Veryo Engray Ralancing Portfolio Quantities	30	6 (The Energy Market)	6.17.1(†)	Loss Factor adjusted Verve Energy Balancing Portfolio  Constrained Off Verve Energy Balancing Portfolio Quantities	
and associated prices,		iviai Kel)			

	Chapter	Clause	As amended	Comments (if any)
31	6 (The Energy Market)	6.17.4(b)	Constrained Off Compensation Price1 (CoffP1) equals the  Balancing Price less the Loss Factor Adjusted Price of Offer or  Bid N identified in 6.17.4(a). less the Balancing Price less	Correct the typographical error.
32	6 (The Energy Market)	6.17.5(e)	The Non-Qualifying Constrained On Generation for the Verve Energy Balancing Portfolio equals the sum, expressed in sent out MWh, of the following Ancillary Services (if any)tetal Upwards LFAS Enablement plus the Upwards LFAS Backup Enablement (in MWh) which System Management instructed Verve Energy to provide from Facilities within the Verve Energy Balancing Portfolio:  (i) Upwards LFAS Enablement; (ii) Upwards LFAS Backup Enablement; and (iii) the Spinning Reserve Response Quantity less the LFAS Response Quantity,	To reflect the introduction of Spinning Reserve Event and Spinning Reserve Response concepts.
33	6 (The Energy Market)	6.17.6A(e)	The Non-Qualifying Constrained off Generation for the Verve Energy Balancing Portfolio equals the sum, expressed in sent out MWh, of the following Ancillary Services (if any)total Downwards LFAS Enablement plus the Downwards LFAS Backup Enablement (in MWh) which System Management instructed Verve Energy to provide from Facilities in the Verve Energy Balancing Portfolio:  (i) Downwards LFAS Enablement;  (ii) Downwards LFAS Backup Enablement; and  (iii) the Load Rejection Response Quantity less the LFAS Response Quantity,	Amendment to reflect introduction of Load Rejection Event concept.
34	6 (The Energy Market)	6.17.6(b)	subject to clause 6.17.7, the sum-amount determined using the following formula, where RP is the quantity in the Facility's Resource Plan under clause 6.11.1(b)(iii), LF is the applicable Loss Factor and Metered-Schedule is the quantity in the Facility's Metered Schedule over all Scheduled Generators and Dispatchable Loads registered by the Market Participant of the following amounts for Trading Interval t:  (i) if the Dispatch Instruction was to decrease load:  Min(-RP x LF + MS, No. lin clause 6.17.6B x LF) x	Correction to formula.

	Chapter	Clause	As amended	Comments (if any)
			Consumption Decrease Price; or  (ii) if the Dispatch Instruction was to increase load:  -1(Max(-RP x LF + MS, No. lin clause 6.17.6B x LF) x Consumption Increase Price); and	
35	6 (The Energy Market)	6.17.9	The IMO must other than for the Electricity Generation CorporationFacilities in the Verve Energy Balancing Portfolio, determine a FacilityDispatch Settlement Tolerance for each Scheduled Generator and Dispatchable Load, where this Facility Dispatch Settlement Tolerance is equal to the lesser of: (a) 3 MWh; and (b) the greater of: i. 0.5 MWh; and ii. 3% of the Facility's: 1. sent out capacity in the case of a Scheduled Generator; or 2. nominated maximum consumption quantity in the case of a Dispatchable Load, as set out in Standing Data divided by 2 to be expressed as MWhs.	Clarification that Verve Energy Balancing Portfolio is excluded.
36	7 (Dispatch)	7.1.1	System Management must maintain and, in accordance with clause 7.6, use the following data set in giving and must use this data set when determining which Dispatch Instructions to Non-Balancing Facilities, Dispatch Instructions to Balancing Facilities dispatched Out of Merit and in providing Operating Instructions it will give:	Amended for clarity.
37	7 (Dispatch)	7.5	The IMO has amended all references to "Dispatch Merit Order" to "Non-Balancing Dispatch Merit Order", which appear in the attached proposed Amending Rules.	
38	7 (Dispatch)	7.6.2AA	7.6.2AA A reference to a Balancing Merit Order in this clause 7.6 means, for a Trading Interval: (a) the Balancing Merit Order provided by the IMO to System Management under clause 7A.3.5(b); (b) if no such Balancing Merit Order is provided, the most recent Forecast BMO for that Trading Interval provided under clause 7A.3.16(b); (c) if no such Forecast BMO is provided, the BMO or the Forecast BMO that was used by System Management for	Amended for clarity. Other amendment as per comment 20 in System Management table.

	Chapter	Clause	As amended	Comments (if any)
			issuing Dispatch Instructions for the same Trading Interval the previous day if both Trading Intervals occur on a Business Day, or the most recent non-Business Day if the Trading Interval occurs on a non-Business Day.	
39	7 (Dispatch)	7.6A.2(a)i.	A plant schedule describing the merit order in which the Facilities in its-the Verve Energy Balancing Portfolio are to be called upon and any restrictions on the operations of such Facilities:	Amended for clarity.
40	7 (Dispatch)	7.6A.2(c)i.	a forecast of the requirements for the Electricity Generation Corporation energy in its the Verve Energy energy Balancing Portfolio, being a forecast of the whole of system energy requirement less the aggregate Net Contract Positions energy of all Resource Plans of other Market Participants and less the aggregate forecast output of Intermittent Non-Scheduled Generators, including any Non-Scheduled Generators which are Stand Alone Facilities, for the Trading Day;	
41	7 (Dispatch)	7.6A.3(b)	System Management must provide adequate notice to the Electricity Generation CorporationVerve Energy, based on Standing Data, before a Facility in itsthe Verve Energy Balancing Portfolio is required to respond to an instruction given under (a)-; and	Amended for clarity.
42	7 (Dispatch)	7.6A.4	With respect to the dispatch compliance of the Electricity Generation Corporation Verve Energy for Facilities in itsthe Verve Energy Balancing Portfolio:	Amended for clarity.
43	7 (Dispatch)	7.7.3(e)	the ramp-rate to maintain until the required level of sent out generation or consumption is reached which must not exceed the any applicable Ramp Rate Limit.	Amendment to reflect that not all Dispatch Instructions will be subject to a Ramp Rate Limit, for example, Demand Side Programs.
44	7 (Dispatch)	7.10.3	Where a Market Participant cannot meet its Resource Plan, a Dispatch Instruction, an Operating Instruction or a direction given under clauses 7.6 or 7.10.7(a), as applicable, it must inform System Management as soon as practicable.	Amended for clarity.
45	7 (Dispatch)	7.10.7(a)	unless the deviation is within the Tolerance Range, must, in the time and form and manner prescribed by the IMO in the IMS	Amended for clarity.

	Chapter	Clause	As amended	Comments (if any)
			Interface Document Procedures, report the failure to comply with the request referred to in clause 7.10.5, to the IMO. System Management must include in the report:	
46	7 (Dispatch)	7.11.1	A Dispatch Advisory is a communication by System Management to Market Participants, Network Operators and the IMO that there has been, or is likely to be, an event that will require a significant deviation from Resource Plans, dispatch of Facilities Out of Merit or will restrict communication between System Management and any of the Market Participants, Network Operators, or the IMO.	Deviation from Resource Plans is no longer a reason to issue a Dispatch Advisory.
47	7 (Dispatch)	7.11.5(g)	[Blank] System Management expects to issue a Dispatch Instruction Out of Merit, including, for the purpose of this clause, issuing an Operating Instruction Dispatch Order to the Verve Energy Balancing Portfolio in accordance with clause 7.6.2; or.	Dispatch Orders, not Operating Instructions, are issued to the Verve Energy Balancing Portfolio.
48	7 (Dispatch)	7.11.5(g)	[Blank] System Management expects to use LFAS Facilities other than in accordance with the LFAS Merit Order under clause 7B.3.9;	Amendment to clarify when System Management may use LFAS Facilities outside the LFAS Merit Order.
49	7 (Dispatch)	7.11.6(dA)	where System Management is to release a Dispatch Advisory under clause 7.11.5(g), details of the estimated variation from the Out of Merit quantities determined under clause 7A.5.13, reasons for the deviation from the BMO and all relevant information about the deviation;	Correction to delete reference to clause 7A.5.13, which does not exist.
50	7 (Dispatch)	7.11.6(dB)	where System Management is to release a Dispatch Advisory under clause 7.11.5(h), details of the estimated quantities of LFAS that are to be used, reasons for the deviation from the LFAS Merit Order and all relevant information about the deviation;	Amendment to clarify when System Management may use LFAS Facilities outside the LFAS Merit Order.
51	7 (Dispatch)	7.12.1(bA)	the incidence and reasons for the issuance of Dispatch Instructions to Balancing Facilities Out of Merit, including for the purposes of this clause, issuing Dispatch Orders to the Verve Energy Balancing Portfolio in accordance with clause 7.6.2;	Correction to capture dispatch of the Verve Energy Balancing Portfolio other than in the order in which it appears in the BMO.

	Chapter	Clause	As amended	Comments (if any)
52	7 (Dispatch)	7.12.1(d)ii.	a summary of the actions that System Management took in response to the incident in each case <u>.</u> ; and; and	Formatting.
53	7 (Dispatch)	7.12.1(e)	the incidence and reasons for the selection and use of LFAS Facilities under clause 7B.3.9.of any Equipment Test approved in accordance with clause 3.21AA, including the date the Equipment Test occurred and the Facility details.	Amendment to clarify when System Management may use LFAS Facilities outside the LFAS Merit Order.
54	7 (Dispatch)	7.13.1(a)	System Management must provide the IMO with the following data for a Trading Day by noon on the first Business Day following the day on which the Trading Day ends:  (a) [Blank]the Operational System Load Estimate in each Trading Interval in the Trading Daya schedule of all of the Dispatch Orders that System Management issued for each Trading Interval in the Trading Day, including the information specified in the IMS Interface Document Procedures or as agreed between the IMO and System Management;	Introduced to ensure IMO has all appropriate information relating to Dispatch Order.
55	7 (Dispatch)	7.13.1(e)	[Blank]the quantity of any Ex-Post Upwards LFAS Enablement, and Ex-Post Downwards LFAS Enablement that System Management activated by that was being provided at the end of the Trading Interval together with the LFAS Facility that provided it:	Clause broken into two for referencing purposes. Note the numbering of all proposed amending rule will be rationalised once any final form of the amending rules is determined as part of any Final Rule Change Report.
56	7 (Dispatch)	7.13.1(eA)	the quantity of any Upwards LFAS Backup Enablement and Downwards LFAS Backup Enablement that System  Management activated by the end of the Trading Interval;	Clause broken into two for referencing purposes.
57	7 (Dispatch)	7.13.1(eAi)	the quantity of any Downwards LFAS Backup Enablement that System Management activated by the end of the Trading Interval:	Clause broken into two for referencing purposes.
58	7 (Dispatch)	7.13.1(eAii)	the quantity of any Ex-Post Downwards LFAS Enablement that was being provided at the end of the Trading Interval together with the LFAS Facility that provided it;	Clause broken into two for referencing purposes.
59	7 (Dispatch)	7.13.1(eAiii)	by Trading Interval, the Load Rejection Reserve Quantity, the Load Rejection Response Quantity, the Spinning Reserve Quantity, the Spinning Reserve Response Quantity and the LFAS Response Quantity, calculated in accordance with the	Clause added to reflect exclusion of Load Rejection and Spinning Reserve Quantities form Verve Energy's Constrained On/Off Quantities (outlined in section 5.1 of this report).

	Chapter	Clause	As amended	Comments (if any)
			Power System Operating Procedure;	
60	7 (Dispatch)	7.13.1(eAiv )	the quantity of any Load Rejection Reserve Quantity that System Management activated under clause 6.16B.2(b)(ii)(3);	Clause added to reflect exclusion of Load Rejection and Spinning Reserve Quantities form Verve Energy's Constrained On/Off Quantities (outlined in section 5.1 of this report).
61	7 (Dispatch)	7.13.1(eAv)	the quantity of any Spinning Reserve Quantity that System Management activated under clause 6.16B.1(b)(ii)(3):	Clause added to reflect exclusion of Load Rejection and Spinning Reserve Quantities form Verve Energy's Constrained On/Off Quantities (outlined in section 5.1 of this report).
62	7 (Dispatch)	7.13.1(eAvi	any Upwards LFAS Spinning Reserve Quantity in a Trading Interval;	
63	7 (Dispatch)	7.13.1(eAvii	any Downwards LFAS Spinning Reserve Quantity in a Trading Interval;	
64	7 (Dispatch)	7.13.4	System Management must provide the IMO with SCADA data by Facility in accordance with the IMS Interface Document Procedures.	New requirement to enable the IMO to receive SCADA data.
65	7 (Dispatch)	7A.1.2(b)	dispatch the lowest cost combination of resourcesFacilities made available for Balancing;	Amended for clarity.
66	7 (Dispatch)	7A.1.6	A Market Participant must ensure that its Balancing Facilities with a rated capacity equal to or greater than 10MW meet the Balancing Facility Requirements.	Amended in accordance with the change outlined in section 5.1 of this Draft Rule Change Report
67	7A (Balancing Market)	7A.1.8	7A.1.8 If, based on the information provided to it under clause 7A.1.7, the IMO determines that a Balancing Facility, including a Balancing Facility with a rated capacity of less than 10 MW, does not meet the Balancing Facility Requirements, the IMO may:  (a) suspend the obligation of the Market Participant to ensure that its Balancing Facility meets some or all of the Balancing Facility Requirements; and  (b) impose conditions on the manner in which the Market Participant must participate in the Balancing Market under these Market Rules, including:	Amended in accordance with the change outlined in section 5.1 of this Draft Rule Change Report

	Chapter	Clause	As amended	Comments (if any)
			(a)i- the price at which the Market Participant must submit a Balancing Submission;	
			(b)ii. the manner and time in which a Balancing Submission must be submitted; and	
			iii. the entitlement to be issued Capacity Credits.	
68	7A (Balancing Market)	7A.1.9	[Blank]Where a suspension granted by the IMO under clause 7A.1.8(a) or a condition imposed by the IMO under clause 7A.1.8(b) is inconsistent with another clause in the Market Rules the suspension and/or condition is to be given effect notwithstanding that inconsistency.	Amended in accordance with the change outlined in section 5.1 of this Draft Rule Change Report
69	7A (Balancing Market)	7A.1.10	The IMO must publish a decision under clause 7A.1.8 to grant a suspension or impose a condition together with the details of such suspension and condition.	Amended in accordance with the change outlined in section 5.1 of this Draft Rule Change Report
70	7A (Balancing Market)	<del>7A.1.11</del>	In making a determination under clause 7A.1.8, the IMO must consider whether the likely benefits to the operation of the Balancing Market would be outweighed by the relative cost to a Market Participant in ensuring its Balancing Facility meets the	Amended in accordance with the change outlined in section 5.1 of this Draft Rule Change Report
			Balancing Facility Requirements.	
71	7A (Balancing Market)	7A.1.13	Where this Chapter 7A imposes a timeframe of "as soon as reasonably practicable", the IMO may prescribe, in a Market Procedure, the latest time by which this must be done.	To clarify where the requirements are to appear.
72	7A (Balancing Market)	7A.1.15	The IMO may, from time to time, change the point in time determined under clause 7A.1.154 by publishing the new point in time on the Market Web Site and specifying the date from which the new point in time is to take effect, which shall be no earlier than 2 months from the date of publication.	Cross referencing error.
73	7A (Balancing Market)	7A.2.6	A subsequent Balancing Submission made under clauses 7A.2.2, 7A.2.9(d), (e) or (f), or 7A.2.10 or 7A.3.4 in respect of the same Balancing Facility covering the same Trading Interval as an earlier Balancing Submission, overrides the earlier	New reference to reflect new proposed amendments to clause 7A.3.4.

	Chapter	Clause	As amended	Comments (if any)
			Balancing Submission for, and has effect in relation to, that	
			Trading Interval.	
74	7A (Balancing Market)	7A.2.8(a)	all information reasonably available to ithe Market Participant, including Balancing Forecasts published by the IMO, the information under clause 7A.3.16 and the latest information available to it in relation to any Internal Constraint or External Constraint;	Amended for clarity.
75	7A (Balancing Market)	7A.2.10(a)	if the inaccuracy is due to an Internal Constraint - must make a new, accurate Balancing Submission so that the quantity in the Balancing Submission reflects the available Sent Out Capacity and the Ramp Rate Limit is accurate but the price is not altered, in respect of that Trading Interval as soon as reasonably practicable	Typographical error.
76	7A (Balancing Market)	7A.2.13(c)	not make a Balancing Submission containing prices that seek to influence the determination of the Constrained Off Competition Price, the Constrained Off Quantity, which Facility may provide the Constrained Off Quantity, the Constrained On Compensation Price or, the Constrained On Quantity of which Facility may provide the Constrained On Quantity.	Amended for clarity.
77	7A (Balancing Market)	7A.2.16	Subject to clauses 7A.2.3,and 7A.2.9(c) and 7A.3.4, a Market Participant must not, for any Trading Interval, offer prices within its Balancing Submission in excess of the Market Participant's reasonable expectation of the short run marginal cost of the Balancing Facility, when such behaviour relates to market power.	New reference to reflect new proposed amendments to clause 7A.3.4.
78	7A (Balancing Market)	7A.3.4	The IMOA Market Participant must adjust the ranked list ofmake a new Balancing Submissions, other than for the Verve Energy Balancing Portfolio, in the Balancing Merit Order in a Trading Interval within half an hour of the end of the Trading Interval in which the information is published under clause 7B.3.5(e) as follows:  (a) where anits LFAS Price-Quantity Pair is selected under clause 7B.3.5(b) for the Trading Interval,— so that the Balancing Facility associated withprice in the selected LFAS Price-Quantity Pair is ranked as if the price for the sum of the quantity	Amendment in line with section 5.1 of this report "Accounting for LFAS in the BMO and Balancing Submissions".

	Chapter	Clause	As amended	Comments (if any)
	7A (Balancing	7A.3.7(b)	of capacity for the Facility specified in item 1(b)xiii of Standing Data, plus the quantity of capacity equal to the Upwards LFAS Enablement of the Facility for that Trading Interval, is at the Alternative Maximum STEM Price; and (b) where anits LFAS Price-Quantity Pair is selected under clause 7B.3.5(c) for the Trading Interval - so that the Balancing Facility associated withprice in the selected LFAS Price-Quantity Pair is ranked as if the price for the sum of the quantity of capacity for the Facility specified in item 1(b)xiii of Standing Data, plus the quantity of capacity equal to the Downwards LFAS Enablement of the Facility for that Trading Interval is at the Minimum STEM Price  The IMO must, by the end of a Trading Day where it has been	Amendment to reflect marginal pricing
79	Market)	7A.3.7(D)	provided with the information under clause 7A.3.6 for a Trading Interval:  (a) use that information to determine a provisional Pricing BMO for that Trading Interval;  (b) use the provisional Pricing BMO under clause 7A.3.7(a) to determine the provisional Balancing Price, being the Loss Factor Adjusted Price corresponding to the point where the estimated Relevant Dispatch Quantity plus 1 MW intersects the provisional Pricing BMO; and  (c) publish that Price on the Market Web Site.	
80	7A (Balancing Market)	7A.3.8	7A.3.8 System Management must, as soon as reasonably practicable but in any event no later than 24 hours after the start of the Business Day following the time specified in clause 7A.3.6, provide the IMO with any updated adjustments to the information provided under clause 7A.3.6 and the IMO must use any such updated SOI Quantity and EOI Quantity information to revise the Provisional Pricing BMO accordingly.	
81	7A (Balancing Market)	7A.3.9	The IMO must, subject to clause 7A.3.12, use the provisional Pricing BMO determined under clause 7A.3.7(a), as revised	Amendment to reflect marginal pricing.

	Chapter	Clause	As amended	Comments (if any)
			under clause 7A.3.8, to determine the Balancing Price, being the Loss Factor Adjusted Price corresponding to the point where the Relevant Dispatch Quantity plus 1MW intersects the Pricing BMO. Where there is no change to the provisional Balancing Price determined under clause 7A.3.7(b), that price is deemed to be the Balancing Price.	
82	7A (Balancing Market)	7A.3.12(b)	where the Pricing BMO and the BMO is not available for the Trading Interval the IMO is to use the most recent Forecast Pricing BMO in place of the BMO in (a);	
83	7A (Balancing Market)	7A.3.12(c) and (d)	(c) where the Pricing BMO and the Forecast Pricing BMO isare not available for the Trading Interval the IMO is to use the most recent Forecast BMO in place of the BMO in (a); and(d) where there is no Forecast BMO: if the IMO is determining the Balancing Price for a Trading Interval in a Business Day, the Balancing Price will be the value for the equivalent Trading Interval in the most recent Trading Day in the past which is also a Business Day; or if the IMO is determining the Balancing Price for a Trading Interval in a day which is not a Business Day, the Balancing Price will be the value for the equivalent Trading Interval in the most recent Trading Day in the past which is also not a Business Day.  (d) where there is no Forecast BMO: if the IMO is determining the Balancing Price for a Trading Interval in a Business Day, the Balancing Price will be the value for the equivalent Trading Interval in the most recent Trading Day in the past which is also a Business Day; or if the IMO is determining the Balancing Price for a Trading Interval in a day which is not a Business Day, the Balancing Price for a Trading Interval in a day which is not a Business Day, the Balancing Price for a Trading Interval in a day which is not a Business Day, the Balancing Price for a Trading Interval in a day which is not a Business Day, the Balancing Price will be the value for the equivalent Trading Interval in the most recent Trading Day in the past which is also not a Business Day.	Typographical.

	Chapter	Clause	As amended	Comments (if any)
84	7A (Balancing Market)	7A.3.15	The IMO must, for each future Trading Interval in the Balancing Horizon determine:  (a) a Forecast BMO; and  (b) subject to receiving the information from System Management under clause 7A.3.14, determine a Forecast Pricing BMO.	
85	7A (Balancing Market)	7A.3.16	Where the IMO determines the Forecast BMO and Forecast Pricing BMO under clause 7A.3.15, the IMO must: (a) provide to each Market Participant: (i) the Balancing quantities expected to be provided by that Market Participant for a Trading Interval in the Balancing Horizon as indicated by the Forecast Pricing BMO; or (ii) where the IMO is unable to provide the information in clause 7A.3.16(a)(i) - the Balancing quantities expected to be provided for a Trading Interval in the Balancing Horizon as indicated by the most recent Forecast BMO; and (b) provide to System Management the Forecast BMO-and the Forecast Pricing BMO.	
86	7A (Balancing Market)	7A.3.18	The IMO is to determine Balancing Forecast Market Procedures from time to time in accordance with the following principles: (a) to the extent reasonably practicable, the Balancing Forecast.  Forecast BMO and the Forecast.  Pricing BMO must use the latest information available to the IMO; and (b) to provide Market Generators with information upon which to make an assessment regarding whether to make a Balancing Submission or to update a Balancing Submission in accordance with the Market Rules.	
87	7B (Load Following Ancillary Service)	7B.2.3	Subject to clause 7B.2.5, Verve Energy must immediately before 6:00PM] submit an LFAS Submission, for one or more Trading Intervals in the Balancing Horizon for which LFAS Gate Closure has not occurred, by submitting it to the IMO:(a)-in accordance with clause 7B.2.5; and (b) must, by 6.00PM make LFAS Submissions for each Trading	Duplication of requirement in clauses 7B.2.4 and 7B.2.5.

	Chapter	Clause	As amended	Comments (if any)
			Interval in the next Trading Day in which the sum of the MW Quantity contained in those LFAS Submissions equals at least the latest forecast LFAS Quantity for that Trading Interval published under clause 7B.3.16(b), if any.	
88	7B (Load Following Ancillary Service)	7B.2.5	Verve Energy must ensure that, for each Trading Interval, for which it has made LFAS Submissions under this clause 7B in which the sum of the MW quantities contained in those LFAS Submissions equals at least the latest forecast LFAS Quantity for that Trading Interval published under clause 7B.3.16(b), if any.	Clarification of clause.
89	7B (Load Following Ancillary Service)	7B.2.18	Where an LFAS Facility is selected under clauses 7B.3.5(b) or (c) to provide LFAS in a Trading Interval, then a Market Participant must, unless it has provided advice to the IMO under clause 7B.2.167, provide the LFAS in the Trading Interval when required to do so by System Management under the Market Rules.	Cross reference error (other changes in response to Item 23 in SM submission).
90	7B (Load Following and Ancillary Service)	7B.3.2	The IMO is to must determine the LFAS Upwards Merit Order for a Trading Interval by deriving a ranked list of LFAS Submissions and associated LFAS Facilities. Subject to clause 7B.3.4, the list is obtained by ranking LFAS Upwards Price-Quantity Pairs for a Trading Interval contained in LFAS Submissions in order of lowest to highest price using the Loss Factor Adjusted Prices determined under clause 7B.3.1 and the prices in the Upwards LFAS Portfolio Supply Curve.	Amendment to reflect the prices to be used in the LFAS Market are not Loss Factor Adjusted.
91	7B (Load Following and Ancillary Service)	7B.3.3	The IMO must determine the LFAS Downwards Merit Order for a Trading Interval by deriving a ranked list of LFAS Submissions and associated LFAS Facilities. Subject to clause 7A.3.4, the list is obtained by ranking LFAS Downwards Price-Quantity Pairs for a Trading Interval contained in LFAS Submissions in order of highest to lowest to highest price using the Loss Factor Adjusted Prices determined under clause 7B.3.1 and the prices in the Downwards LFAS Portfolio Supply Curve.	Amendment to reflect the prices to be used in the LFAS Market are not Loss Factor Adjusted.

	Chapter	Clause	As amended	Comments (if any)
92	7B (Load Following and Ancillary Service)	7B.3.5(e)	each time the IMO creates an LFAS Merit Order, to the extent the IMO is reasonably able, publish it and the highest price selected under each of clauses 7B.3.5(b) and (c) as soon as reasonably practicable after the determination, but no later than 15 minutes after the LFAS Gate Closure for which the LFAS Merit Order relatesbetween one and a half to two hours before the start of the first Trading Interval in the LFAS Horizon to which the LFAS Merit Order relates.	Amendment to clarify timing.
93	7B (Load Following Ancillary Service)	7B.3.6	Where a selection under clauses 7B.3.5(b) or (c) requires an LFAS Facility to provide a quantity of LFAS less than the mMinimum permitted LFAS qQuantity, as determined by System Management and published by the IMO on the Market Web Site, the IMO may select the lowest priced LFAS Price-Quantity Pair that subject to any restrictions under clause 7B.1.2(c), is able to provide a quantity of LFAS equal to the minimum LFAS quantity.	Amendment to reflect definition of Minimum LFAS Quantity is now available in the Glossary.
94	7B (Load Following Ancillary Service)	7B.3.9	Where System Management is the cause of an External Constraint affecting the Network, or the Network is not responding to frequency deviations, System Management may use the LFAS Facilities for meeting LFAS requirements other than in accordance with the LFAS Merit Order.  System Management may select and use LFAS Facilities other than in accordance with the LFAS Merit Order where System Management considers, on reasonable grounds, that it needs to do so in order to operate the SWIS in a reliable and safe manner.	Amendment to clarify when System Management may use LFAS Facilities outside the LFAS Merit Order.
95	7B (Load Following Ancillary Service)	7B.4.1	Where:  (a) an LFAS Facility has failed to provide all of part of the LFAS when called upon to do so by System Management in accordance with clause 7B.3.7; or  (b) the quantity of LFAS in a Trading Interval is greater than the LFAS Quantity published under clause 7B.1.5 for that Trading Interval,  System Management must may use the Verve Energy	Change to reflect System Management has a discretion.

	Chapter	Clause	As amended	Comments (if any)
			Balancing Portfolio to provide the LFAS Quantity Balance and/or	
			Increased LFAS Quantity, as applicable.	
96	7B (Load	7B.4.2	Where System Management has used the Verve Energy	Amendment to reflect that LFAS payments are
30	Following Ancillary		Balancing Portfolio to provide LFAS under clause 7B.3.8 or	made on the quantity available to be provided
	Service)		clause 7B.4.1 in a Trading Interval, it must, as soon as	not on any "output" value.
			reasonably practicable, advise the IMO of:	
			(a) the quantity, in MW, of LFAS by which was provided by the	
			output of the Verve Energy Balancing Portfolio was increased in	
			the Trading Interval; or	
			(b) the quantity, in MW, by which the output of the Verve Energy	
			Balancing Portfolio was decreased in the Trading Interval.	
97	9 (Settlement)	9.9.1(b)	LRFLFR(m) is the capacity necessary to cover the Ancillary	Typographical error.
37			Services Requirement for Load Following for Trading Month m	
			in as specified by the IMO under clause 3.22.1(fA);	
98	9 (Settlement)	9.9.1(b)	Cc denotes a Contracted Ancillary Service;	Typographical error.
99	9 (Settlement)	9.18.3(c)iv	the Maximum Theoretical Energy Schedule and the Minimum	Change to reflect near M&M TES concept.
99	,		Theoretical Energy Schedule Dispatch Schedule data for each	3
			of the Market Participant's Registered Facilities;	
100	10 (Market	10	Reversion to original confidentiality concept.	
	Information)			
101	10 (Market	10	The concept of the SWIS Restricted category of information has	
	Information)		been deleted and all such information is now in the Public category.	
102	10 (Market	10.5.1(zE)	the current Non-Balancing Dispatch Merit Order;	Typographical error.
102	Information)			
103	10 (Market	10.5.2	The IMO must set the class of confidentiality status for the	
	Information)		following information under clause 10.2.1, as Public:	
			(a) SCADA data by Facility;	
			(b) the sum of each LF_Up_Market_Payment referred to in	
			clause 9.9.2(a) that was made in a Trading Month;	
			(c) the sum of each LF_Down_Market_Payment referred to in	
			clause 9.9.2(b) that was made in a Trading Month;	

	Chapter	Clause	As amended	Comments (if any)
			(d) the sum of each total Trading Month LF_Market_Payment referred to in clause 9.9.2(d) that was made in a Trading Month; (e) the payment referred to in clause 9.9.2(e) for each Trading Interval in a Trading Month; (f) the payment referred to in clause 9.9.2(f) for each Trading Interval in a Trading Month; (g) the payment referred to in clause 9.9.2(g); (h) the cost referred to in clause 9.9.2(h) for each Trading Interval in a Trading Month; (i) the cost referred to in clause 9.9.2(i) for each Trading Interval in a Trading Month; (j) the cost referred to in clause 9.9.2(m); (k) the cost referred to in clause 9.9.2(o); and (l) the cost referred to in clause 9.9.2(p).	
104	11 (Glossary)	11	Authorised Deviation Quantity (ADQ(p,d,t)): For a Market Participant p for a given Trading Interval t, is as calculated under clause 6.17.2.	Definition not used.
105	11 (Glossary)	11	Balancing Facility Requirements: Means the procedures  determined developed under clause 7A.1.5, which are a subset of the Market Procedure.	Rule consistency.
106	11 (Glossary)	11	Balancing Forecast Market Procedures: Means the procedures determined developed under clause 7A.3.18, which are a subset of the Market Procedure.	Rule consistency.
107	11 (Glossary)	11	Confidential: Any information or document determined to be confidential by the IMO under clause 10.2.1.	Definition no longer used.

	Chapter	Clause	As amended	Comments (if any)
108	11 (Glossary)	11	Confidentiality Procedures: Means the procedures determined under clause 10.2.3, which are a subset of the Market Procedures.	Definition no longer used.
109	11 (Glossary)	11	Dispatch Order: Means an instruction by System Management under clause 7.6A for a Facility or Facilities in the Verve Energy Balancing Portfolio to vary output or consumption. comply with or deviate from the Dispatch Plan.	Amendment to correct reference to Dispatch Plan.
110	11 (Glossary)	11	Downwards LFAS Quantity: Means the quantity, in MW, by which the sum of the output of LFAS Facilities is able to be reduced in a Trading Interval to provide LFAS.	Amendment to reflect it is potential that is relevant.
111	11 (Glossary)	11	Downwards LFAS Spinning Reserve Quantity: Means any Downwards LFAS Enablement or Downwards LFAS Backup Enablement included in Load Rejection Reserve required by System Management for that Trading Interval.	
112	11 (Glossary)	11	Downward Unauthorised Deviation Quantity: Means the amount calculated in accordance with clause 6.17.4.	Definition not used.
113	11 (Glossary)	11	Equipment Test: Hhas the meaning given in clause 3.21AA.1.	Definition no longer used.
114	11 (Glossary)	11	Ex-post Downwards LFAS Enablement: Means, for the end of a Trading Interval, the sum of the downwards quantities of LFAS, in MW, provided under clauses 7.13.1(e) and (eA) in that Trading Interval, less the sum of any Downwards LFAS	Clarification.

	Chapter	Clause	As amended	Comments (if any)
			qQuantities, in MW, notified under clause 7B.2.17 for that Trading Interval.	
115	11 (Glossary)	11	Ex-post Upwards LFAS Enablement: Means, for the end of a Trading Interval, the sum of the upwards quantities of LFAS, in MW, provided under clauses 7.13.1(e) and (eA) in that Trading Interval, less the sum of any Upwards LFAS Quantities, in MW, notified under clause 7B.2.17 for that Trading Interval.	Clarification.
116	11 (Glossary)	11	Forecast Pricing BMO: Means a forecast of the Pricing BMO determined by the IMO in accordance with the Balancing Forecast Market Procedures.	Definition no longer used.
117	11 (Glossary)	11	IMS Interface Document Procedures: Means the Market pProcedures determined under clause 2.36.79, which are a subset of the Market Procedure.	Amendment for consistency.
118	11 (Glossary)	11	LFAS Facility Requirements: Means the Market pProcedures determined under clause 7B.1.2, which are a subset of the Market Procedure.	Amendment for consistency.
119	11 (Glossary)	11	Load Rejection Reserve Event: Means a contingency event which causes System Management to activate a Facility in the Verve Energy Balancing Portfolio so that it provides a Load Rejection Reserve Response.  Load Rejection Reserve Response: Means a Load Rejection Reserve response by a Facility in accordance with clause 3.9.7.  Load Rejection Reserve Quantity: Means, for a Trading Interval, the quantity of energy, in MWh, provided by a Facility as a Load Rejection Reserve Response.	New definition ties into new clauses 6.16B.2(b)ii.3 and 6.17.6A(e).
120	11 (Glossary)	11	Minimum LFAS Quantity: Means the minimum permitted LFAS quantity, as determined by System Management and published by the IMO on the Market Web Site.	New definition of Minimum LFAS Quantity.

	Chapter	Clause	As amended	Comments (if any)
121	11 (Glossary)	11	Operating Instruction: Means an instruction issued by System Management requiring a Facility to increase or decrease its output or decrease its consumption to meet the requirements of:  (a) a Network Control Service Contract;  (b) an Ancillary Service Contract;  (c) a Test under these Market Rules;  (d) a Supplementary Capacity Contract; or  (e) Ancillary Services, other than LFAS, to be provided by Facilities other than Facilities in the Verve Energy Balancing	Amendment to reflect the wider range of Facilities that provide Ancillary Services.
122	11 (Glossary)		Portfolio a Stand Alone Facility in accordance with the Market Rules.  Portfolio Upwards Out of Merit Generation: Means the	Correction of cross reference error.
122			amount calculated in accordance with 6.16B.21.	
123	11 (Glossary)	11	Relevant Quantity: Has the meaning given in clause 6.14.4(d).	Definition not used.
124	11 (Glossary)	11	Scheduled System Load: Has the meaning given in clause 6.14.4(c).	Definition not used.
125	11 (Glossary)	11	Spinning Reserve Event: Means a contingency event which causes System Management to activate a Facility in the Verve Energy Balancing Portfolio so that it provides a Spinning Reserve Response.  Spinning Reserve Response: Means a Spinning Reserve response by a Facility in accordance with clause 3.9.3.  Spinning Reserve Response Quantity: Means, for a Trading Interval, the quantity of energy, in MWh, provided by a Facility as a Spinning Reserve Response.	New definitions to tie into new clauses 6.16B.1(b)ii.3 and 6.17.5(e).

	Chapter	Clause	As amended	Comments (if any)
126	11 (Glossary)	11	Steady State LFAS Base Point: Means the MW level at which a Market Participant must operate an LFAS Facility in a Trading Interval when not providing a LFAS, in order for the LFAS Facility to subsequently be capable of providing a specified LFAS in that Trading Interval.	Definition not used.
127	11 (Glossary)	11	<b>Synergy</b> : The body corporate established under section 4(1)(c) of the Electricity Corporations Act 1994 2005 (WA).	Typographical.
128	11 (Glossary)	11	Maximum Theoretical Energy Schedule: Means the schedule determined under clause 6.15.1.	Correction to definition.
129	11 (Glossary)	11	Minimum Theoretical Energy Schedule: Means the schedule determined under clause 6.15.2.	New definition.
130	11 (Glossary)	11	Theoretical Portfolio Dispatch Schedule: Has the meaning set out in 6.16B.1(b).	Definition now not used.
131	11 (Glossary)	11	Upwards LFAS Quantity: Means the quantity, in MW, by which the sum of the output of LFAS Facilities is able to be increased in a Trading Interval to provide LFAS.	Amendment to reflect it is potential that is relevant.
132	11 (Glossary)	11	Western Power: The body corporate established by section 4(1)(b) underof the Electricity Corporations Act 2005 (WA) (1994) as Western Power Corporation	Typographical.
133	Appendix 6		The second part of this appendix describes a process for converting all Market Participant Portfolio Supply Curves into a single MCAP Price Curve.  For each Trading Interval in the Trading Day:	Schedule no longer used.
			<ul> <li>(f) Determine for every price between the Minimum STEM Price and the Alternative Maximum STEM Price:</li> <li>i. the sum over all Market Participants except those recorded as not making a STEM Submission for the Trading Interval of the maximum cumulative quantity the Market Participant is prepared</li> </ul>	
			to sell into the STEM from all of its Price-Quantity Pairs in its Portfolio Supply Curve;	

Chapter	Clause	As amended	Comments (if any)
		ii. the sum over all Market Participants except those recorded as not making a STEM Submission for the Trading Interval of the minimum cumulative quantity the Market Participant is prepared to sell into the STEM from all of its Price-Quantity Pairs in its Portfolio Supply Curve;	
		iii. the MCAP Price Curve quantity for that price where	
		1. the minimum MCAP Price Curve quantity for that price equals the value in (ii);	
		2. the maximum MCAP Price Curve quantity for that price equals the value in (i); and	
		3. the MCAP Price Curve for that price includes all quantities between those in (1) and (2).	

# **APPENDIX 3: PROPOSED AMENDING RULES**

The IMO Board proposes to implement the following Amending Rules (deleted text, added text).

# EXTRACT OF PROPOSED AMENDMENTS TO THE WHOLESALE ELECTRICITY MARKET RULES

5 December 2011

Proposed balancing and load following ancillary service changes in red underline and strikethrough

# **Disclaimer**

This unofficial extract of the Wholesale Electricity Market Rules reflects the rules as amended and published in the Government Gazette up to 15 December 2006 and amending changes made by the IMO up to 1 December 2011 together with proposed balancing and load following service amendments in mark up. This unofficial extract is provided for information and has no legal standing. The Independent Market Operator disclaims any responsibility for any liability arising from any act done or omission made in reliance on this unofficial extract of the Wholesale Electricity Market Rules.

For the version of the Wholesale Electricity Market Rules that is currently in force under the *Electricity Industry (Wholesale Electricity Market) Market Rules 2004* please refer to the *Wholesale Electricity Market Rules (September 2006)* as Gazetted on 19 September 2006 and any subsequent amendments gazetted in the Western Australia Government Gazette or approved and published by the IMO on the IMO web site.

5 December 2011 2

#### **TABLE OF CONTENTS**

#### 1. INTRODUCTION

#### The Market Rules

- 1.1. Authority of Market Rules
- 1.2. Objectives

#### **Conventions**

- 1.3. Electricity Industry Act and Regulations
- 1.4. Other rules of interpretation
- 1.5. Subservient Documents
- 1.6. Notices
- 1.7. Publication

## Staging

- 1.8. Staging of the Market Rules
- 1.9. Transition

#### 2. ADMINISTRATION

#### **Functions and Governance**

- 2.1. Independent Market Operator
- 2.2. System Management
- 2.3. The Market Advisory Committee

#### **Market Documents**

- 2.4. Market Rules
- 2.5. Rule Change Proposals
- 2.6. Fast Track Rule Change Process
- 2.7. Standard Rule Change Process
- 2.8. Review of IMO Rule Amendment Decisions, Ministerial Approval and Coming into Force of Rule Amendments
- 2.9. Market Procedures
- 2.10. Procedure Change Process
- 2.11. Coming into Force of Procedure Amendments

#### Monitoring, Enforcement and Audit

- 2.12. Standard of Performance
- 2.13. Market Rule Compliance Monitoring and Enforcement
- 2.14. Audit
- 2.15. Monitoring and Reporting Protocols
- 2.16. Monitoring the Effectiveness of the Market

#### **Reviewable Decisions and Disputes**

- 2.17. Reviewable Decisions
- 2.18. Disputes
- 2.19. First Stage Dispute Resolution
- 2.20. Second Stage Dispute Resolution

# **Market Consultation**

2.21. Market Consultation

#### **Budgets and Fees**

- 2.22. Determination of the IMO's budget
- 2.23. Determination of System Management's budget
- 2.24. Determination of Market Fees
- 2.25. Payment of Market Participant Fees

#### **Maximum and Minimum Prices and Loss Factors**

- 2.26. Economic Regulation Authority Approval of Maximum and Minimum Prices
- 2.27. Determination of Loss Factors

# **Participation and Registration**

- 2.28. Rule Participants
- 2.29. Facility Registration Classes
- 2.30. Facility Aggregation
- 2.30A. Exemption from Funding Spinning Reserve
- 2.30B. Intermittent Load
- 2.30C. Rule Commencement and Registration Data
- 2.31. Registration Process
- 2.32. Rule Participant Suspension and Deregistration
- 2.33. The Registration Forms
- 2.34. Standing Data

# **Communications and Systems Requirements**

- 2.35. Dispatch Systems Requirements
- 2.36. Market Systems Requirements

### **Prudential Requirements**

- 2.37. Credit Limit
- 2.38. Credit Support
- 2.39. Trading Limit
- 2.40. Outstanding Amount
- 2.41. Trading Margin
- 2.42. Margin Call
- 2.43. Prudential Market Procedure

#### **Emergency Powers**

2.44. Minister's Emergency Powers

## 3. POWER SYSTEM SECURITY AND RELIABILITY

#### **Security and Reliability**

- 3.1. SWIS Operating Standards
- 3.2. Technical Envelope, Security and Equipment Limits
- 3.3. Normal Operating State
- 3.4. High Risk Operating State
- 3.5. Emergency Operating State
- 3.6. Demand Control
- 3.7. System Restart
- 3.8. Investigating Incidents in the SWIS

#### **Ancillary Services**

- 3.9. Definitions of Ancillary Services
- 3.10. Ancillary Service Standards
- 3.11. Determining & Procuring Ancillary Service Requirements

- 3.12. Ancillary Service Dispatch
- 3.13. Payment for Ancillary Services
- 3.14. Ancillary Service Cost Recovery
- 3.15. Review of Ancillary Service Requirements Process and Standards

### **Medium and Short Term Planning**

- 3.16. Medium Term PASA
- 3.17. Short term PASA
- 3.18. Outage Scheduling3.19. Outage Approval
- 3.20. Outage Recall
- 3.21. Forced Outages

# **Commissioning Tests**

- 3.21A Commissioning Tests
- 3.21AA [Blank] Equipment Tests

#### **Decommitment and Reserve Capacity Obligations**

3.21B. Decommitment and Reserve Capacity Obligations

#### **Settlement Data**

3.22. Settlement Data

#### 4. RESERVE CAPACITY RULES

### The Reserve Capacity Cycle

The Reserve Capacity Cycle 4.1.

# The Reserve Capacity Expression of Interest

- The Reserve Capacity Expression of Interest Process
- 4.3. Information to be Included in Requests for Expression of Interest
- 4.4. Information to be Included in Expression of Interests

#### The Long Term SWIS Capacity Requirements

- 4.5. Long Term Projected Assessment of System Adequacy
- 4.6. Reserve Capacity Requirements

# **Certification of Reserve Capacity**

- The Reserve Capacity Information Pack 4.7
- 4.8. Who Can Apply for Certification of Reserve Capacity
- 4.9. Process for Applying for Certification of Reserve Capacity
- 4.10. Information Required for the Certification of Reserve Capacity
- 4.11. Setting Certified Reserve Capacity
- 4.12. Setting Reserve Capacity Obligations

## **Commitment of Capacity to Auction or Bilateral Trade**

- 4.13. Reserve Capacity Security
- 4.14. Market Participant Auction and Bilateral Trade Declaration

#### **Reserve Capacity Auctions**

- 4.15. Confirmation or Cancellation of Reserve Capacity Auctions
- 4.16. The Maximum Reserve Capacity Price
- 4.17. Reserve Capacity Auction Submission Process
- 4.18. Reserve Capacity Offer Format

5 December 2011 5

#### 4.19. Reserve Capacity Auction Clearing

## **Capacity Credits**

4.20. Capacity Credits

# **Special Price Arrangements**

- 4.21. Short Term Special Price Arrangements
- 4.22. Long Term Special Price Arrangements
- 4.23. Capacity Credits and Force Majeure
- 4.23A. Capacity Credits and Facility Registration

#### **Addressing Shortages of Reserve Capacity**

4.24. Supplementary Reserve Capacity

### **Testing, Monitoring and Compliance**

- 4.25. Reserve Capacity Testing
- 4.26. Financial Implications of Failure to Satisfy Reserve Capacity Obligations
- 4.27. Reserve Capacity Performance Monitoring

# **Funding Reserve Capacity Purchased by the IMO**

4.28. Funding Reserve Capacity Purchased by the IMO

### **Intermittent Load Refunds**

4.28A. Intermittent Load Refunds

#### **Treatment of New Small Generators**

4.28B. Treatment of New Small Generators

### **Early Certification of Reserve Capacity**

4.28C. Early Certification of Reserve Capacity

### **Settlement Data**

4.29. Settlement Data

### 5. NETWORK CONTROL SERVICE

#### **Network Control Service Process**

- 5.1. Definitions and Obligations
- 5.2. Registration and Certification
- 5.3. [Blank]
- 5.4. [Blank]
- 5.5. Contract Conditions
- 5.6. Network Control Service Contract Compliance Conditions
- 5.7. Network Control Service Dispatch

#### **Settlement Data**

5.8. Network Control Service Contracts Payments

# 6. THE ENERGY MARKET

## **Energy Scheduling Timetable and Process**

6.1. [Blank]

62	Pilatoral Submissio	n Timetable and Process

- 6.2A. Standing Bilateral Submission Timetable and Process
- 6.3. [Blank]
- 6.3A. Information to Support the Bilateral and STEM Submission Process
- 6.3B. STEM Submissions Timetable and Process
- 6.3C. Standing STEM Submission Timetable and Process
- 6.4. The STEM Auction Timetable and Process
- 6.5. Resource Plan Submission Timetable and Process
- 6.5A. Balancing Data Submission Timetable and Process[Blank]
- 6.5B. [Blank]
- 6.5C. Standing Resource Plan Submission Timetable and Process

#### **STEM Submission and Bilateral Submission Formats**

- 6.6. Format of STEM Submission and Standing STEM Submission Data
- 6.7. Format of Bilateral Submission Data

#### **The STEM Auction Process**

- 6.9. The STEM Auction
- 6.10. Suspension of the STEM

#### Resource Plans and Balancing Data

- 6.11. Format of Resource Plans
- 6.11A. Format of Balancing Data

### The Non-Balancing Dispatch Merit Order

6.12. The Non-Balancing Dispatch Merit Order

#### **Balancing Pricing and Quantities**

- 6.13. Real Time Dispatch Information
- 6.14. [Blank] Calculation of MCAP, UDAP and DDAP
- 6.15. Maximum and Minimum Theoretical Energy Schedule The Dispatch Schedule
- 6.16. The Metered Schedule
- 6.16A Facility Out of Merit
- 6.16B Verve Energy Balancing Portfolio Out of Merit
- 6.17. Balancing Settlement Quantities
- 6.18. [Blank] Commitment Compensation

#### **Market Advisories and Energy Price Limits**

- 6.19. Market Advisories
- 6.20. Energy Price Limits

#### **Settlement Data**

6.21. Settlement Data

### 7. DISPATCH

# Data used in the **Non-Balancing** Dispatch Process

- 7.1. Data Used in the Non-Balancing Out of Merit Dispatch Process
- 7.2. Load Forecasts and Ancillary Service Requirements
- 7.3. Outages
- 7.4. Resource Plans
- 7.5. Non-Balancing Dispatch Merit Orders and Fuel Declarations

#### **Dispatch Process**

7.6. The Dispatch Criteria

- 7.6A. Scheduling and Dispatch of the Electricity Generation Corporation Verve Energy Balancing Portfolio
- 7.7. Dispatch Instructions
- 7.8. Dispatch Instructions <u>and Operating</u> Instructions Implemented by System Management
- 7.9. Commitment

### **Dispatch Compliance**

7.10. Compliance with Resource Plans and Dispatch Instructions and Operating Instructions

#### Advisories, Balancing Suspension and Reporting

- 7.11. Dispatch Advisories
- 7.12. Status Reports

#### **Settlement and Monitoring Data**

7.13. Settlement and Monitoring Data

### **7A BALANCING MARKET**

- 7A.1 Balancing Market
- 7A.2 Balancing Market submissions
- 7A.3 BMO and Pricing BMO
- 7A.4 <u>Electricity Generation Corporation Verve Energy Stand Alone Facilities</u>

## **7B LFAS Market**

- 7B.1 LFAS Market
- 7B.2 LFAS Submissions
- 7B.3 LFAS Merit Order
- 7B.4 Verve Energy Back Up LFAS Provider

#### 8. WHOLESALE MARKET METERING

#### **Metering Data Agents**

- 8.1. Metering Data Agents
- 8.2. Duties of a Metering Data Agent

#### **Meter Registry**

8.3. Meter Registry

#### **Meter Data Submissions**

- 8.4. Meter Data Submission
- 8.5. Notices of Disagreement and Disputed Meter Data
- 8.6. Format of Meter Data Submissions

### **Metering Protocol Requirements**

8.7. Metering Protocol Requirements

## **Support of Calculations**

8.8. Support of Calculations

#### 9. SETTLEMENT

#### Introduction

- 9.1. Conventions
- 9.2. Settlement Procedure

#### **Settlement Data**

- 9.3. Data Collection
- 9.4. Capacity Credit Allocation Process
- 9.5. Format of Capacity Credit Allocation Submissions

#### **Settlement Calculations**

- 9.6. STEM Settlement Calculations for a Trading Week
- 9.7. The Reserve Capacity Settlement Calculations for a Trading Month
- 9.8. The Balancing Settlement Calculations for a Trading Day
- 9.9. The Ancillary Service Settlement Calculations for a Trading Month
- 9.10. The Commitment and Outage Compensation Settlement Calculations for a Trading Month
- 9.10A. Non-Compliance Charge
- 9.11. The Reconciliation of Settlement Calculations for a Trading Month
- 9.12. Network Control Service Calculations for a Trading Month
- 9.13. The Market Participant Fee Settlement Calculations for a Trading Month
- 9.14. The Net Non-STEM Settlement Amount for a Trading Month
- 9.15. The Service Fee Settlement Amount for a Trading Month

#### **Settlement Statements**

- 9.16. Settlement Cycle Timelines
- 9.17. STEM Settlement Statements
- 9.18. Non-STEM Settlement Statements
- 9.19. Adjusted Settlement Statements
- 9.20. Notices of Disagreement
- 9.21. Settlement Disputes

#### **Invoicing and Payment**

9.22. Invoicing and Payment

#### **Default and Settlement in Default Situations**

- 9.23. Default
- 9.24. Settlement in Default Situations

#### 10. MARKET INFORMATION

# **Information Policy**

- 10.1. Record Retention
- 10.2. Information Confidentiality Status
- 10.3. The Market Web Site
- 10.4. Information to be Released on Application

#### Information to be Released via the Market Web Site

10.5. Information to be Released via the Market Web Site

#### 11. GLOSSARY

#### APPENDIX 1: STANDING DATA

**APPENDIX 2: SPINNING RESERVE COST ALLOCATION** 

**APPENDIX 3: RESERVE CAPACITY AUCTION & TRADE METHODOLOGY** 

**APPENDIX 4: [BLANK]** 

APPENDIX 4A: INTERMITTENT LOAD INDIVIDUAL RESERVE CAPACITY

**REQUIREMENTS** 

APPENDIX 5: INDIVIDUAL RESERVE CAPACITY REQUIREMENTS

APPENDIX 5A: NON-TEMPERATURE DEPENDENT LOAD REQUIREMENTS

APPENDIX 6: STEM BID, STEM OFFER AND MCAPBALANCING PRICE CURVE

**DETERMINATION** 

APPENDIX 7: [BLANK] DISPATCH SCHEDULE CALCULATION

**APPENDIX 8: [BLANK]** 

- 2.1.2. The functions of the IMO are:
  - (a) to administer these Market Rules;
  - (b) to operate the Reserve Capacity Mechanism, the Short Term Energy Market, the LFAS Market, and the Balancing Market and the Balancing process;
  - (c) to settle such transactions as it is required to under these Market Rules;
  - (d) to carry out a Long Term PASA study and to publish the Statement of Opportunities Report;
  - (e) [Blank]to do anything that the IMO determines to be conducive or incidental to the performance of the functions set out in this Market Rule;
  - (f) to process applications for participation, and for the registration, deregistration and transfer of facilities;
  - (g) to release information required to be released by these Market Rules;
  - (h) to publish information required to be published by these Market Rules;
  - (i) to develop amendments to these Market Rules and replacements for them;
  - (j) to develop Market Procedures, and amendments and replacements for them, where required by these Market Rules;
  - (k) to make available copies of the Market Rules and Market Procedures, as are in force at the relevant time;
  - (I) to monitor other Rule Participants' compliance with the Market Rules, to investigate potential breaches of the Market Rules, and if thought appropriate, initiate enforcement action under the Regulations and these Market Rules;
  - to support the Economic Regulation Authority in its market surveillance role, including providing any market related information required by the Economic Regulation Authority;
  - (n) to support the Economic Regulation Authority in its role of monitoring market effectiveness, including providing any market related information required by the Economic Regulation Authority; and
  - (o) to carry out any other functions conferred, and perform any obligations imposed, on it under these Market Rules.
- 2.2.1. The Electricity Networks Corporation Western Power, acting through the segregated business unit known as System Management, has the function of operating the SWIS in a secure and reliable manner for the purposes of regulation 13(1) of the Regulations.

- 2.3.5. ...
  - (c) at least one and not more than two members representing Network Operators, of whom one must represent Electricity Networks

    CorporationWestern Power;
- 2.10.1. The IMO or System Management, as applicable, may initiate the Procedure Change Process by developing a Procedure Change Proposal.
- 2.10.2. Rule Participants may notify the IMO or System Management, as applicable, where they consider an amendment or replacement of a Market Procedure would be appropriate.
- 2.10.2A. Where the IMO or System Management has decided not to amend or replace a Market Procedure following a notification under clause 2.10.2, the IMO or System Management, as applicable, must publish reasons for that decision on the Market Web Site.
- 2.10.3. If an Amending Rule requires the IMO or System Management to develop new Market Procedures or to amend or replace existing Market Procedures, then the IMO or System Management, as applicable, is responsible for the development of, amendment of or replacement for, Market Procedures so as to comply with the Amending Rule.
- 2.13.10. If the IMO becomes aware of an alleged breach of the Market Rules or Market Procedures, then:
  - (a) it must record the alleged breach;
  - (b) it must investigate the alleged breach;
  - (c) it must record the results of each investigation;
  - (d) where it reasonably believes a breach of the Market Rules or Market Procedures has taken place, it may issue a warning to the Rule Participant to rectify the alleged breach. The warning must:
    - identify the clause or clauses of the Market Rules or the Market Procedures that the IMO believes has been, or are being, breached;
    - ii. describe the behaviour that comprises the alleged breach;
    - iii. request an explanation; and
    - request that the alleged breach be rectified and a time (which the IMO considers reasonable) by which the alleged breach should be rectified; and

- (e) it must record the response of the Rule Participant to any warning issued under clause 2.13.10(d).
- 2.13.11. If the IMO becomes aware of an alleged breach of the Market Rules or the Market Procedures, then it may meet with the relevant Rule Participant on one or more occasions to discuss the alleged breach and possible actions to rectify the alleged breach.
- 2.13.12. As part of an investigation into alleged breaches of the Market Rules or Market Procedures, the IMO may:
  - (a) require information and records from Rule Participants; and
  - (b) conduct an inspection of a Rule Participant's equipment.
- 2.13.13. Rule Participants must cooperate with an investigation into an alleged breach of the Market Rules or Market Procedures, including:
  - (a) providing the IMO with information requested under clause 2.13.12 relating to the alleged breach in a timely manner; and
  - (b) allowing reasonable access to equipment for the purpose of an inspection carried on under clause 2.13.12.
- 2.13.13A. A Rule Participant must not engage in conduct under clause 2.13.13 that is false or misleading in a material particular.
- 2.13.14. Where a Rule Participant does not comply with clause 2.13.13, the IMO may appoint a person to investigate the matter and provide a report or such other documentation as the IMO may require. If the IMO does so, then:
  - (a) the Rule Participant must assist the person to undertake the investigation and prepare the report or other documentation; and
  - (b) the cost of the investigation and the preparation of the report or other documentation must be met by the Rule Participant unless the IMO determines otherwise.
- 2.13.15. Where the alleged breach relates to a Category A Market Rule (as determined in accordance with the Regulations) and the IMO is not the Rule Participant that is alleged to have breached the Market Rules, the IMO must make a decision as to whether a breach has occurred.
- 2.13.16. The IMO may:
  - (a) decide a breach has taken place in which case the IMO may issue a penalty notice in accordance with the Regulations; or
  - (b) decide a breach has not taken place and notify:
    - i. the Rule Participant that is alleged to have breached the Market Rules; and

ii. where a Rule Participant notified the IMO in accordance with clause 2.13.4, that Rule Participant,

of its decision.

2.13.17. Where the IMO issues a penalty notice under clause 2.13.16(a), the Rule Participants that received the penalty notice may seek a review of that decision by the Electricity Review Board in accordance with the Regulations.

#### 2.13.18. Where:

- (a) the alleged breach relates to a Category B or Category C Market Rule (as determined in accordance with the Regulations); and
- (b) following the investigation referred to in clause 2.13.10(b), the IMO reasonably believes that a breach of the Market Rules has taken place,

the IMO may bring proceedings before the Electricity Review Board.

2.13.19. Where the person referred to in clause 2.13.1 receives notice of an alleged breach by the IMO in accordance with clause 2.13.5, the person referred to in clause 2.13.1 must investigate the alleged breach of the Market Rules or Market Procedures, and may require information and records from the IMO.

# 2.16. Monitoring the Effectiveness of the Market

- 2.16.1. The IMO is responsible for collection and primary analysis of data in accordance with this clause 2.16. The IMO must:
  - (a) compile the data identified in the Market Surveillance Data Catalogue and provide that data to the Economic Regulation Authority; and
  - (b) analyse the compiled data in accordance with clause 2.16.4 and provide the results of the analysis to the Economic Regulation Authority.
- 2.16.2. The IMO must develop a Market Surveillance Data Catalogue, which identifies data to be compiled concerning the market. The Market Surveillance Data Catalogue must identify the following data items:
  - (a) the number of Market Generators and Market Customers in the market;
  - (b) the number of participants in each Reserve Capacity Auction;
  - (c) clearing prices in each Reserve Capacity Auction and STEM Auctions;
  - (d) <u>LFAS Submissions</u>Balancing Data prices and other Standing Data prices used in Balancing;
  - (dA) all Reserve Capacity Auction offers;
  - (e) all bilateral quantities scheduled with the IMO;
  - (f) all STEM Offers and STEM Bids, including both quantity and price terms;

- (g) [Blank] Balancing Submissions, including associated Balancing Price-Quantity Pairs and Ramp Rate Limits;
- (gA) all Fuel Declarations;
- (gB) all Availability Declarations;
- (gC) all Ancillary Service Declarations;
- (h) any substantial variations in STEM Offer and STEM Bid prices or quantities relative to recent past behaviour;
- (hA) any evidence that a Market Customer has significantly over-stated its consumption as indicated by its Net Contract Position with a regularity that cannot be explained by a reasonable allowance for forecast uncertainty or the impact of Loss Factors;
- (hB) the information in clause 7A.2.17(c);
- (hC) any substantial variations in Balancing price or quantities relative to recent past behaviour;
- (i) the capacity available through Balancing from <u>Balancing Facilities</u>, <u>Generators and Non-Scheduled Generators and Dispatchable Loads and Demand Side Management</u>;
- the frequency and nature of Dispatch Instructions and Operating
   Instructions to Market Participants other than the Electricity Generation
   Corporation;
- (k) the number and frequency of outages of Scheduled Generators and Non-Scheduled Generators, and Market Participants' compliance with the outage scheduling process;
- (I) the performance of Market Participants with Reserve Capacity Obligations in meeting their obligations;
- (m) details of Ancillary Service Contracts and Balancing Support Contracts that System Management enters into;
- (n) [Blank]all LFAS Prices;
- (o) the number of Rule Change Proposals received, and details of Rule Change Proposals that the IMO has decided not to progress under clause 2.5.6; and
- (p) such other items of information as the IMO considers relevant to the functions of the IMO and the Economic Regulation Authority under this clause 2.16.
- 2.16.3. The IMO must publish the Market Surveillance Data Catalogue, and must republish this document whenever it changes.

- 2.16.4. The IMO must undertake the following analysis of the data identified in the Market Surveillance Data Catalogue to calculate relevant summary statistics:
  - (a) where applicable, calculation of the means and standard deviations of values in the Market Surveillance Data Catalogue;
  - (b) monthly, quarterly and annual moving averages of prices for the STEM Auctions, and the Balancing Market and the LFAS Market;
  - (c) statistical analysis of the volatility of prices in the STEM Auctions and Balancing;
  - (cA) any consistent or significant variations between the Fuel Declarations, Availability Declarations, and Ancillary Service Declarations for, and the actual operation of, a Market Participant facility in real-time;
  - (d) the proportion of time the prices in the STEM Auctions and through Balancing are at each Energy Price Limit;
  - (e) correlation between capacity offered into the STEM Auctions and the incidence of high prices;
  - (f) correlation between capacity <u>offered into and made</u> available in the Balancing <u>Market</u> and the incidence of high prices; <del>and</del>
  - (fA) correlation between capacity offered into and made available in the LFAS

    Market and the incidence of high prices;
  - (g) exploration of the key determinants for high prices in the STEM, and in Balancing and in the LFAS Market, including determining correlations or other statistical analysis between explanatory factors that the IMO considers relevant and price movements; and
  - (h) such other analysis as the IMO considers appropriate or is requested of the IMO by the Economic Regulation Authority.
- 2.16.5. The IMO must, on request from the Economic Regulation Authority, and in any event at least once each month, provide the Economic Regulation Authority with the data identified in the Market Surveillance Data Catalogue and the results of the analysis on that data referred to in clause 2.16.4.
- 2.16.6. Where the Economic Regulation Authority considers that it is necessary or desirable for the performance of its functions or the functions of the IMO under this clause 2.16, the Economic Regulation Authority may collect additional information from Rule Participants as follows:
  - (a) the Economic Regulation Authority may issue a notice to one or more Rule Participants requiring them to provide specified data to the Economic Regulation Authority by a date (which the Economic Regulation Authority considers to be reasonable);

- (b) Market Participants must provide any information requested by the Economic Regulation Authority by the date specified in the notice; and
- (c) the Economic Regulation Authority must provide this information to the IMO where the Economic Regulation Authority considers that it is necessary or desirable for the performance of the IMO's functions under this clause 2.16.
- 2.16.7. Without limitation, additional information that can be collected by the Economic Regulation Authority includes:
  - (a) cost data for the Electricity Generation Corporation Verve Energy, including actual fuel costs by Trading Interval;
  - (b) System Management's operational records, including SCADA records, of the level of utilisation and fuel related data for each of the Electricity Generation Corporation Verve Energy's Registered Facilities by Trading Interval; and
  - (c) the terms of Bilateral Contracts entered into by the Electricity Generation Corporation Verve Energy and the Electricity Retail CorporationSynergy.
- 2.16.8. Rule Participants may notify the IMO or the Economic Regulation Authority of behaviour that they consider reduces the effectiveness of the market, including behaviour related to market power, and the Economic Regulation Authority, with the assistance of the IMO, must investigate the behaviour identified in each relevant notification.
- 2.16.9. The Economic Regulation Authority is responsible for monitoring the effectiveness of the market in meeting the Wholesale Market Objectives and must investigate any market behaviour if it considers that the behaviour has resulted in the market not functioning effectively. The Economic Regulation Authority, with the assistance of the IMO, must monitor:
  - (a) Ancillary Service Contracts and Balancing Support Contracts that System Management enters into and the criteria and process that System Management uses to procure Ancillary Services and balancing support services from other persons;
  - (b) inappropriate and anomalous market behaviour, including behaviour related to market power and the exploitation of shortcomings in the Market Rules or Market Procedures by Rule Participants including, but not limited to:
    - prices offered by a Market Generator in its Portfolio Supply Curve that do not reflect the Market Generator's reasonable expectation of the short run marginal cost of generating the relevant electricity;
    - ii. [Blank]prices offered by a Market Generator in its Balancing Submission that exceed the Market Generator's reasonable

- expectation of the short run marginal cost of generating the relevant electricity;
- iii. prices offered by a Market Generator in its LFAS Submission that
  exceed the Market Generator's reasonable expectation of the
  incremental change in short run marginal cost incurred by the LFAS
  Facility in providing the relevant LFAS-Balancing Data price
  changes, and changes in other Standing Data prices used in
  Balancing, that cannot be justified by an underlying change in cost;
- iv. Availability Declarations that may not reflect the reasonable expectation of a fFacilitiey's availability, beyond outages of which System Management has been notified;
- v. Ancillary Service Declarations that may not reflect the reasonable expectation of the <u>aA</u>ncillary <u>sS</u>ervices to be provided by a <u>fF</u>acility; and
- vi. Fuel Declarations that may not reflect the reasonable expectation of the fuel that a facility will be run on in real-time;
- (c) market design problems or inefficiencies; and
- (d) problems with the structure of the market.
- 2.16.9A. The IMO must assist the monitoring activities identified in clauses 2.16.9(b)(i), (ii) and (iii) by examining prices in relevant STEM-Ssubmissions, including Sstanding STEM-Ssubmissions, used in forming STEM Bids and STEM Offers and prices in price-quantity pairs against information collected from Rule Participants in accordance with clauses 2.16.6 and 2.16.7.
- 2.16.9B. Where the IMO concludes that prices offered by a Market Generator in its:
  - Portfolio Supply Curve or its Balancing Submission may not reflectexceed the Market Generator's reasonable expectation of the short run marginal cost of generating the relevant electricity; or
  - (b) LFAS Submission may exceed the Market Generator's reasonable expectation of the incremental change in short run marginal cost incurred by the LFAS Facility in providing the relevant LFAS,

and the IMO considers that the behaviour relates to market power the IMO must:

- (ac) as soon as practicable, request an explanation from the Market Participant which has made the relevant STEM Submission, Balancing Submission or LFAS Submission; and
- (bd) advise the Economic Regulation Authority of its conclusions. The IMO advice must outline the reasons for the IMO's conclusions.

- 2.16.9C. The Market Participant must submit the explanation requested under clause 2.16.9B within 2 Business Days from receiving the request.
- 2.16.9D. The IMO must publish the explanation submitted under clause 2.16.9C on the Market Web Site as soon as practicable.
- 2.16.9E. Where the Economic Regulation Authority receives an advice from the IMO under clause 2.16.9B(b) or receives a notification from a Rule Participant under clause 2.16.8, the Economic Regulation Authority must investigate the identified behaviour. Without limitation, for this purpose the Economic Regulation Authority must examine the IMO advice, any explanation received under clause 2.16.9C, any data already in the possession of the Economic Regulation Authority or additional data it requests from the relevant Market Participant under clause 2.16.6 to assist in the investigations.
- 2.16.9F. Subject to clause 2.16.FA, the Economic Regulation Authority must publish the results of its investigations within six months from receiving the IMO advice under clause 2.16.9B(b) or from receiving a notification from a Rule Participant under clause 2.16.8. If that day is not a Business Day, then the next Business Day following that six month period will apply.
- 2.16.9FA. Subject to clause 2.16.9FB, the Economic Regulation Authority may extend the timeframe for an investigation under clause 2.16.9E for a period of up to six months, to the nearest Business Day following that six month extension period. Where the Economic Regulatory Authority makes such an extension it must notify the IMO and the IMO must publish a notice of the extension on the Market Web Site within one Business Day of receiving the notification. The Economic Regulation Authority may extend the timeframe for an investigation more than once.
- 2.16.9FB For investigations of matters notified under clause 2.16.8, a notice of extension must not include any information identifying the Market Participant under investigation.
- 2.16.9G Where the Economic Regulation Authority determines that:
  - (a) prices in the Portfolio Supply Curve or in a Balancing Submission, subject to the investigation, did not reflect the Market Generator's reasonable expectation of the short run marginal cost of generating the relevant electricity; or
  - (b) the LFAS Submission exceeded the Market Generator's reasonable
     expectation of the incremental change in short run marginal cost incurred
     by the LFAS Facility in providing the relevant LFAS,

the Economic Regulation Authority must request that the IMO applies to the Electricity Review Board for an order for contravention of clause 6.6.3, clause 7A.2.16 or clause 7B.2.14.

- 2.16.9H. Where the IMO receives a request under clause 2.16.9G the IMO must refer the relevant matter to the Electricity Review Board requesting that a civil penalty be imposed on the relevant Market Participant.
- 2.16.10. The Economic Regulation Authority must also review:
  - (a) the effectiveness of the Market Rule change process and Procedure change process;
  - (b) the effectiveness of the compliance monitoring and enforcement measures in the Market Rules and Regulations;
  - (c) the effectiveness of the IMO in carrying out its functions under the Regulations, the Market Rules and Market Procedures; and
  - (d) the effectiveness of System Management in carrying out its functions under the Regulations, the Market Rules and Market Procedures.
- 2.16.11. The Economic Regulation Authority must provide to the Minister a report on the effectiveness of the market and dealing with the matters identified in clauses 2.16.9 and 2.16.10:
  - (a) at least annually; and
  - (b) more frequently where the Economic Regulation Authority considers that the market is not effectively meeting the Wholesale Market Objectives.
- 2.16.12. A report referred to in clause 2.16.11 must contain but is not limited to the following:
  - (a) a summary of the information and data compiled by the IMO and the Economic Regulation Authority under clause 2.16.1;
  - the Economic Regulation Authority's assessment of the effectiveness of the market, including the effectiveness of the IMO and System Management in carrying out their functions, with discussion of each of:
    - i. the Reserve Capacity market;
    - ii. the market for bilateral contracts for capacity and energy;
    - iii. the STEM;
    - iv. in Balancing;
    - v. the dispatch process;
    - vi. planning processes; and

vii. the administration of the market, including the Market Rule change process; and

# viii. Ancillary Services;

- (c) an assessment of any specific events, behaviour or matters that impacted on the effectiveness of the market; and
- (d) any recommended measures to increase the effectiveness of the market in meeting the Wholesale Market Objectives to be considered by the Minister.
- 2.16.13. In carrying out its responsibilities under clause 2.16.9(b), the Economic Regulation Authority must:
  - (a) estimate the prevalence of such behaviour;
  - (b) estimate the cost to end users of such behaviour;
  - (c) estimate the impact of such behaviour on the effectiveness of the market in meeting the market objectives;
  - (d) consult with Market Participants on the impacts of such behaviour;
  - (e) estimate the benefits and costs of any recommended measure to reduce such behaviour. The Economic Regulation Authority:
    - i. may use market simulation tools to estimate the benefits and costs;
    - ii. must give consideration to:
      - 1. the probability of success of the measure in reducing the behaviour:
      - 2. the implications on the efficiency of the market of implementing the measure; and
      - 3. the costs of compliance as a result of implementing the measure:
  - (f) where the benefits of any change are estimated to exceed the cost, make recommendations to the Minister for implementing the measures in a report under clause 2.16.11; and
  - (g) provide details of its findings in a report to the Minister under clause 2.16.11.
- 2.16.14. The Economic Regulation Authority must use any information collected under this clause 2.16, including information provided to it by the IMO, only for the purpose of carrying out its functions under this clause 2.16. The Economic Regulation Authority must treat information collected as confidential and must not publish any of that information other than in accordance with this clause 2.16. The IMO must use information provided to it by the Economic Regulation Authority under clause 2.16.6(c) only for the purpose of carrying out its functions under this clause 2.16. The IMO must treat information provided to it by the Economic Regulation

- Authority under clause 2.16.6(c) as confidential and must not publish any of that information other than in accordance with this clause 2.16.
- 2.16.15. Where the Economic Regulation Authority provides a report to the Minister in accordance with clause 2.16.11, it must, after consultation with the Minister, publish a version of the report which has confidential or sensitive data aggregated or removed. An assessment of the results of the Economic Regulation Authority's monitoring under clause 2.16.9(b) must be included in the published version of the report.
- 2.16.16. In respect of any reports published under this clause 2.16, only aggregate or summary statistics of confidential data may be published. The aggregation must be at a level sufficient to ensure the underlying data cannot be identified. Where aggregated data is derived from confidential data collected from three or less Market Participants, then this data should not be published.
- 2.23.10. The budget proposal must be reflected in the Statement of Corporate Intent for the Electricity Networks CorporationWestern Power and must be consistent with the segregation of System Management from other business units of the Electricity Networks CorporationWestern Power.
- 2.34.7. The IMO may reject a change:
  - (a) in Standing Data related to prices and payments:
    - i. if the price or payment data submitted is inconsistent with any applicable limit on those values under these Market Rules; or
    - ii. if the IMO is not satisfied with evidence provided that the submitted data represents the reasonable costs of the Market Participant in the circumstances related to that price or payment; and
  - (b) in any other Standing Data if it considers that an inadequate explanation, including test results, was provided to justify the change in Standing Data.

## 2.34.7A. The IMO must:

- (a) refer a proposed change in LFAS Standing Data to System Management for advice on whether System Management is satisfied that the proposed changed LFAS Standing Data meets the LFAS Facility Requirements;
- (b) subject to clause 2.34.7B:
  - i. if System Management advises the IMO within 5 Business Days
    that System Management is satisfied the proposed change meets
    the LFAS Facility Requirements, accept the proposed change; or
  - ii. otherwise reject the proposed change; and

- (c) where the IMO rejects the proposed change, advise the Market Participant
  of the rejection together with any reasons provided by System
  Management.
- 2.34.7B. System Management may, within 1 Business Day of receiving a referral under clause 2.34.7A(a), request the IMO to extend the time under clause 2.34.7A(b) for a further period of 5 Business Days. The IMO must advise System Management within 1 Business Day of receiving a request under this clause whether the IMO agrees to extend the time and, if the IMO so advises, the time under clause 2.34.7A(b) is extended to 10 Business Days.
- 2.34.7C. System Management must within the time specified in clause 2.34.7A(b), as extended under clause 2.34.7B, if applicable:
  - (a) consider whether the proposed change to LFAS Standing Data meets the LFAS Facility Requirements;
  - (b) if the proposed changed LFAS Standing Data will meet the LFAS Facility
    Requirements, advise the IMO to accept the proposed change, including
    any enablement and/or quantity restrictions that are to apply to the Facility
    for LFAS Submissions; or
  - (c) if the proposed changed LFAS Standing Data will not meet the LFAS

    Facility Requirements, advise the IMO to reject the proposed change and provide the IMO with System Management's reasons for rejecting the proposed change to LFAS Standing Data.
- 2.34.10. Where System Management becomes aware that a Rule Participant's Standing Data is currently inaccurate, or will become inaccurate as of a date in the future, it must, as soon as practicable, notify the IMO of the item that it considers to be inaccurate or which will become inaccurate, as the case may be.
- 2.34.14. The IMO must commence using revised Standing Data from:
  - (a) 8:00 AM on the Scheduling Day following the IMO's acceptance of the revised Standing Data in the case of:
    - i. Standing STEM Submissions;
    - iA. Standing Bilateral Submissions;
    - iB. Standing Resource Plan Submissions; and
    - ii. [Blank]commitment and decommitment cost data and Standing Balancing Data; and
    - iii. Standing Data changes stemming from acceptance of an application under clause 6.6.9;

- with the exception that the previous Standing Data remains current for the purpose of settling the Trading Day that commences at the same time as that Scheduling Day; and
- (b) as soon as practicable in the case of any other revised Standing Data.
- 2.34.15. System Management must commence using the Standing Data or revised Standing Data, as soon as it is received from the IMO.
- 2.36.6. The IMO may require Market Rule Participants to submit information to the IMO using software systems that the IMO specifies, and may reject information submitted by another method.
- 2.36.7. System Management must, as soon as practicable, provide to the IMO any information the IMO reasonably requires to perform its functions under these Market Rules.
- 2.36.8. The IMO must, as soon as practicable, provide to System Management any information System Management reasonably requires to perform its functions under these Market Rules.
- 2.36.9. The IMO is to develop IMS Interface Document Procedures from time to time prescribing reasonable parameters which System Management and the IMO must, subject to clause 2.36.10, use when providing each other information under these Market Rules, including:
  - (a) the format, form and manner in which that information must be provided; and
  - (b) where the Market Rules do not provide a timeframe for the provision of the information the time by which such information is to be provided.
- 2.36.10. Where the IMS Interface Document Procedures are inadequate to enable either the IMO or System Management to comply with an obligation to provide information to the other under these Market Rules, and such information is required in a timely manner for the efficient performance of the IMO's or System Management's functions, then the following procedure applies until such time as the IMS Interface Procedures are amended to correct the inadequacy:
  - (a) a senior manager from each of the IMO and System Management must
    meet as soon as possible after the inadequacy in the IMS Interface
    Document Procedures is identified and seek to agree an amendment to the
    IMS Interface Document Procedures that addresses the inadequacy and
    which is consistent with these Market Rules;
  - (b) if agreement is reached under clause 2.36.10(a) within 5 Business Days of the first meeting, then the IMO and System Management must seek to amend the IMS Interface Document Procedures accordingly and, in the interim, act in accordance with that agreement;

- (c) if no agreement is reached under clause 2.36.10(b), then an Authorised

  Officer of the IMO and of System Management must meet as soon as
  possible and seek to agree an amendment to the IMS Interface Document

  Procedures that addresses the inadequacy and which is consistent with
  these Market Rules, and develop a Procedure Change Proposal
  accordingly;
- (d) if agreement is reached under clause 2.36.10(c) within 5 Business Days of the first meeting of the Authorised Officers, then the IMO and System Management must seek to develop an amendment to the IMS Interface Document Procedures accordingly and, in the interim, act in accordance with that agreement;
- (e) if no agreement is reached under clause 2.36.10(d), then the IMO, acting reasonably, must develop and draft a Procedure Change Proposal seeking an amendment to the IMS Interface Document Procedures that addresses the inadequacy and which is consistent with these Market Rules; and
- (f) the IMO must develop and publish the Procedure Change Proposal under clause 2.36.10(e) in accordance with clause 2.10 as soon as practicable and the IMO and System Management must act in accordance with the amendment to the IMS Interface Document Procedures proposed in the Procedure Change Proposal until the Proposal is either accepted or rejected.
- 2.37.4. The Credit Limit for each Market Participant is the dollar amount determined by the IMO as being equal to the maximum net amount that the Market Participant is expected to owe the IMO over any 70 day period where this amount is not expected to be exceeded more than once in a 48 month period. When determining the Credit Limit for a Market Participant the IMO must take into account:
  - (a) the average level and volatility of the MCAP Balancing Price and the STEM Clearing Price for the previous 48 months, or such shorter time period as data is available for;
  - (b) the metered quantity data for the Market Participant, or an estimate of their expected generation and consumption where no meter data is available;
  - (c) the correlation between the metered amounts of electricityRelevant

    <u>Dispatch Quantity</u> and MCAPBalancing Price;
  - (d) the length of the settlement cycle and the process set out in clauses 9.23, 9.24 and 2.32;
  - (e) a reduction in the Credit Limit reflecting applicable bilateral contract purchase quantities, where these quantities are the historical bilateral contract submissions, or an estimate of the Market Participant's expected bilateral contract levels where no historical bilateral contract submission data is available;

- (f) the historical STEM sales and purchases, or an estimate of the Market Participant's expected STEM sales and purchases where no historical STEM sale and purchase data is available;
- (fa) the historical level of payments under clause 9.8.1 or an estimate of the

  Market Participant's expected level of payments under clause 9.8.1 where
  no historical payment data is available;
- (g) the expected level of <u>aA</u>ncillary <u>sS</u>ervice payments;
- (h) the statistical distribution of the accrued amounts that may be owed to the IMO;
- (i) the degree of confidence that the Credit Limit will be large enough to meet large defaults; and
- (j) any past breach of the Regulations or these Market Rules by, the Market Participant or a related entity of the Market Participant.

- 3.4.4. System Management may take any other actions as it considers are required, consistent with good electricity industry practice, to return the SWIS to a Normal Operating State provided it acts with as little disruption to electricity supply and to the implementation of Resource Plans that it has received from the IMOseeks to return to issuing Dispatch Instructions in the priority set out in clause 7.6.1B as soon as is reasonably practicable in the circumstances.
- 3.5.5. When the SWIS is in an Emergency Operating State, System Management may:
  - (a) direct any Rule Participant to provide Ancillary Services, whether that Rule Participant has an Ancillary Services Contract in relation to the relevant Facility or not;
  - (b) utilise the overload capacity of Scheduled Generators (as indicated by Standing Data);
  - (c) cancel or defer Planned Outages, require the return to service in accordance with the relevant Outage Contingency Plan of Registered Facilities undergoing Planned Outages or take other measures contained in the relevant Outage Contingency Plans;
  - (d) issue directions to Rule Participants to operate their Registered Facilities in specific ways; and
  - (e) take such other actions as it considers are required, consistent with good electricity industry practice, to restore the SWIS to a Normal Operating State, or to restore the SWIS to a High Risk Operating State where a Normal Operating State is not immediately achievable.
- 3.5.6. System Management must return the SWIS from an Emergency Operating State to a Normal Operating State as soon as practicable.
- 3.5.7. Subject to clause 3.5.6, while operating under an Emergency Operating State, System Management must attempt to operate the SWIS in such a way as to, first minimise the disruption to electricity supply, and then, minimise the disruption to the implementation of Resource Plans, to seek to return to issuing Dispatch Instructions in the priority set out in clause 7.6.1B, to the extent that is reasonably practicable to do so in the circumstances.
- 3.9.1. Load Following Ancillary Service is the service of frequently adjusting:
  - (a) the output of one or more Scheduled Generators; or
  - (b) the output of one or more Non-Scheduled Generators, or
  - (c) the consumption of one or more Loads

within a Trading Interval so as to match total system generation to total system load in real time in order to correct any SWIS frequency variations.

- 3.11.7. System Management must make an annual Ancillary Services plan describing how it will ensure that the Ancillary Service Requirements are met. The Ancillary Services plan must only include:
  - (a) the Electricity Generation Corporation's Registered Facilities; and
  - (b) facilities under the control of Rule Participants, where System Management has an Ancillary Services Contract with each of those Rule Participants.
- 3.11.7A. The Electricity Generation Corporation Verve Energy must make its capacity to provide Ancillary Services from its fFacilities in the Verve Energy Balancing Portfolio available to System Management to a standard sufficient to enable System Management to meet its obligations in accordance with these Market Rules.
- 3.11.8. System Management may enter into an Ancillary Service Contract with a Rule Participant other than the Electricity Generation Corporation Verve Energy, for Spinning Reserve and Load Following Ancillary Services, where:
  - (a) it does not consider that it can meet the Ancillary Service Requirements with the Electricity Generation's CorporationVerve Energy's Registered Facilities; or
  - (b) the Ancillary Service Contract provides a less expensive alternative to Ancillary Services provided by the Electricity Generation Corporation Verve Energy's Registered Facilities.
- 3.13.1. The total payments by the IMO on behalf of System Management for Ancillary Services in accordance with Chapter 9 comprise:
  - (a) [Blank]
  - (aA) for Load Following Service for each Trading Month:
    - i. a capacity payment Capacity\_LF calculated as;LF Capacity\_Cost,
       calculated in accordance with clause 9.9.2(q) for that Trading
       Month; and
      - 1. the Monthly Reserve Capacity Price in that Trading Month;
      - 2. multiplied by LFR, the capacity necessary to meet the Ancillary Service Requirement for Load Following in that month:
    - ii. an <u>amount LF\_Market\_Cost availability payment</u>
       Availiability\_Cost\_LF(m) calculated in accordance with clause
       9.9.2(do) for that Trading Month;
  - (b) an amount Availability\_Cost\_R(m)SR\_Availability\_Cost for Spinning Reserve Service for each Trading Month, which is calculated in accordance with clause 9.9.2(em) for that Trading Month; and

- (c) Cost\_LRD, the monthly amount for Load Rejection Reserve <u>Service</u> and System Restart <u>Service</u>, determined in accordance with the process described in clauses 3.13.3B and 3.13.3C; and Dispatch Support <u>sService</u> determined in accordance with clause 3.11.8B.
- 3.13.3. The parameters Margin\_Peak and Margin\_Off-Peak to be used in the settlement calculation described in clause 9.9.2 are:
  - (a) where the Economic Regulation Authority has not completed its first assessment in accordance with clause 3.13.3A:
    - i. 15-% for Margin\_Peak; and
    - ii. 12% for Margin\_Off-Peak; and
  - (b) determined by the Economic Regulation Authority, where the Economic Regulation Authority has completed its first assessment in accordance with clause 3.13.3A.
- 3.13.3A Subject to clause 3.13.3AB, Ffor each Financial Year, by 31 March prior to the start of that Financial Year, the Economic Regulation Authority must determine values for the parameters Margin\_Peak and Margin\_Off-Peak, taking into account the Wholesale Market Objectives and in accordance with the following:
  - (a) by 30 November prior to the start of the Financial Year, the IMO must submit a proposal for the Financial Year to the Economic Regulation Authority:
    - for the reserve availability payment margin applying for Peak
       Trading Intervals, Margin\_Peak, the IMO must take account of:
      - the margin the Electricity Generation Corporation Verve
         Energy could reasonably have been expected to earn on energy sales forgone due to the supply of Spinning Reserve during Peak Trading Intervals; and
      - 2. the loss in efficiency of the Electricity Generation

        Corporation Verve Energy Registered Facilities that System

        Management has scheduled to provide Spinning Reserve

        during Peak Trading Intervals that could reasonably be
        expected due to the scheduling of those reserves;
    - ii. for the reserve availability payment margin applying for Off-Peak Trading Intervals, Margin\_Off-Peak, the IMO must take account of:
      - the margin the Electricity Generation Corporation Verve
         Energy could reasonably have been expected to earn on energy sales forgone due to the supply of Spinning Reserve during Off-Peak Trading Intervals; and

- the loss in efficiency of the Electricity Generation
   Corporation Verve Energy Registered Facilities that System Management has scheduled to provide Spinning Reserve during Off-Peak Trading Intervals that could reasonably be expected due to the scheduling of those reserves; and
- (b) the Economic Regulation Authority must undertake a public consultation process, which must include publishing an issues paper and issuing an invitation for public submissions.

# 3.13.3AB During the period:

- (a) 8:00 AM on Balancing Market Commencement Day to 8:00 AM 1 July 2012:
  - i. the Margin Peak value is the value determined by the IMO
     consistently with this clause 3.13, and published on the Market Web
     Site; and
  - ii. the Margin-Off-Peak value is the value determined by the IMO consistently with this clause 3.13, and published on the Market Web Site; and
- (b) 8:00 AM 1 July 2012 to 8:00 AM 1 July 2013:
  - the Margin Peak value is the value determined by the IMO
     consistently with this clause 3.13, and published on the Market Web
     Site; and
  - ii. the Margin-Off-Peak value is the value determined by the IMO consistently with this clause 3.13, and published on the Market Web Site.
- 3.14.1. Market Participant p's share of the Load Following Service payment cost in each Trading Month m is Load\_Following\_Share(p,m)LF\_Share(p,m) which equals:
  - (a) the Market Participant's contributing quantity; divided by
  - (b) the total contributing quantity of all Market Participants, where a Market Participant's contributing quantity for Trading Month m is the sum of:
    - the absolute value of the sum of the Metered Schedules for the Non-Dispatchable Loads and Interruptible Loads registered by the Market Participant for all Trading Intervals during Trading Month m; and

- ii. the sum of the Metered Schedules for Non-Scheduled Generators registered by the Market Participant for all Trading Intervals during Trading Month m.
- iii. [Blank]
- 3.14.2 Market Participant p's share of the Spinning Reserve <u>sService</u> payment costs in each Trading Interval t is <u>Reserve\_Share(p,t)SR\_Share(p,t)</u> which equals the amount determined in Appendix 2.
- 3.21A.13. If a Market Participant conducting a Commissioning Test cannot conform to the test plan approved by System Management then it must:
  - (a) inform System Management as soon as practicable; and
  - (b) obtain System Management's approval under this clause 3.21A for a new Commissioning Test.

# 3.21AA [Blank] Equipment Tests

- 3.21AA.1 An Equipment Test ("Equipment Test") is a test conducted by a Market Participant of the ability of a generating system to:
  - (a) verify Standing Data for a Facility in accordance with clause 2.34.6;
  - (b) resolve technical performance issues; or
  - (c) confirm capability of Ancillary Services.
- 3.21AA.2 A Market Participant may apply to System Management for an Equipment Test nolater than 12PM on the Scheduling Day for the next Trading Day.
- 3.21AA.3 An application for an Equipment Test must be made in accordance with the Power System Operation Procedure and contain:
  - (a) the name and location of the Facility to be tested;
  - (b) the commencement time of all Trading Intervals during which testing willbe conducted; and
  - (c) details of the test to be conducted, including an indicative test program.
- 3.21AA.4 System Management must notify the Market Participant of whether System Management has approved an Equipment Test by no later than 4PM on the Scheduling Day.
- 3.21AA.5 System Management must not show bias towards a Market Participant concerning the approval of Equipment Tests.
- 3.21AA.6 In deciding whether to approve a proposed Equipment Test, System Management must have regard to whether:

- (a) there is adequate time to properly consider the application;
- (b) outages approved pursuant to clause 3.19 and tests approved pursuant to clause 4.25.8 would be affected by the intended Equipment Test; and
- (c) the test can be accommodated at the proposed time without undue risk to Power System Security or Power System Reliability.
- 3.21AA.7 System Management must document the procedure it follows in approving Equipment Tests in the Power System Operation Procedure and System Management and Market Participants must follow that documented Market Procedure when planning and conducting Equipment Tests.
- 3.21AA.8 If, having approved an Equipment Test, System Management becomes aware that:
  - (a) the conduct of the test at the proposed time would pose a threat to Power System Security or Power System Reliability; or
  - (b) the Equipment Test is no longer required, then it may cancel its approval of the Equipment Test at any time, including after the start of the Equipment Test, and must notify the Market Participant of the cancellation.
- 3.21AA.9 In conducting an Equipment Test a Market Participant must conform to the test plan approved by System Management.
- 3.21AA.10 If a Market Participant conducting an Equipment Test cannot conform to the test plan approved by System Management then it must inform System Management as soon as practicable.
- 3.22.1. The IMO must provide the following information to the Settlement System for each Trading Month:
  - (a) Capacity\_LF as described in clause 3.13.1(aA);[Blank]
  - (b) [Blank]
  - (c) Margin\_Peak as described in clause 3.13.3A;
  - (d) Margin\_Off-Peak as described in clause 3.13.3A;
  - (e) <u>SR\_Capacity\_Peak\_Capacity\_R\_Peak</u>, the requirement for Spinning Reserve <u>Service</u> for Peak Trading Intervals assumed in forming Margin\_Peak;
  - (f) <u>SR\_Capacity\_Off-PeakCapacity\_R\_Off-Peak</u>, the requirement for Spinning Reserve <u>Service</u> for Off-Peak Trading Intervals assumed in forming Margin\_Off-Peak;
  - (fA) LFR as described in clause 3.13.1(aA)(i)(2);[Blank]
  - (g) Cost\_LRD as the sum of:

- i. Cost\_LR (as described in clauses 3.13.3B and 3.13.3C) divided by 12 as a monthly amount; and
- ii. the monthly amount for Dispatch Support <u>sS</u>ervice as advised in accordance with clause 3.22.3(b); and
- (h) the compensation due to changed outage plans to be paid to a Market Participant for that Trading Month as determined in accordance with clause 3.19.12(e).
- 3.22.2. When System Management has entered into an Ancillary Service Contract with a Rule Participant, System Management must as soon as practicable and not less than 20 Business Days prior to the Ancillary Service Contract taking effect, provide the IMO with:
  - (a) the identity of the Rule Participant; and
  - (b) for each Contracted Ancillary Service to be provided by the Rule Participant under the Ancillary Service Contract:
    - i. a unique identifier for the Contracted Ancillary Service;
    - ii. the type of Ancillary Service where this can be one of:
      - 1. Spinning Reserve Service;
      - 2. Load Following Service; [Blank]
      - 3. Load Rejection Reserve Service;
      - 4. System Restart Service; or
      - 5. Dispatch Support Service; and
    - iii. the form of settlement data that System Management will provide to the IMO for the Contracted Ancillary Service provided by the Rule Participant, where this data must be one of the formats allowed by clause 3.22.3.
- 3.22.3. System Management must provide the following information to the IMO for each Rule Participant holding an Ancillary Service Contract for a Trading Month by the date specified in clause 9.16.2(a):
  - (a) the identity of the Rule Participant; and
  - (b) for each Contracted Ancillary Service provided under an Ancillary Service Contract held by the Rule Participant:
    - i. the type of Ancillary Service where this can be one of:
      - 1. Spinning Reserve Service;
      - 2. Load Following Service; [Blank]
      - 3. Load Rejection Reserve Service;

- 4. System Restart Service; or
- 5. Dispatch Support Service;
- ii. for each Trading Interval of the Trading Month the quantity of Ancillary Service to a precision of 0.001 units, where the unit of measure is:
  - 1. MWh for Spinning Reserve Service;
  - 2. MWh for Load Following Service; [Blank]
  - 3. MWh for Load Rejection Reserve Service;
  - 4. as determined by System Management for System Restart Service; or
  - 5. as determined by System Management for Dispatch Support Service; and

#### iii. either:

- 1. a total monthly payment for the Ancillary Service in dollars and whole cents; or
- 2. a price in dollars and whole cents per unit of the quantity described in (ii) per Trading Interval.

# 4.10. Information Required for the Certification of Reserve Capacity

- 4.10.1. Each Market Participant must ensure that information submitted to the IMO with an application for certification of Reserve Capacity pertains to the Reserve Capacity Cycle to which the certification relates, is supported by documented evidence and includes, where applicable, the following information:
  - (a) the identity of the Facility;
  - (b) the Reserve Capacity Cycle to which the application relates;
  - (bA) with the exception of applications for Conditional Certified Reserve Capacity, evidence of an Arrangement for Access or evidence that the Market Participant has accepted an Access Proposal from the relevant Network Operator made in respect of the Facility and that the Facility will be entitled to have access from a specified date occurring prior to the date specified in clause 4.10.1(c)(iii)(7), including the level of unconstrained access and details of any constraints that may apply;
  - (c) if the Facility, or part of the **f**Facility, is yet to enter service:
    - i. [Blank]
    - ii. with the exception of applications for Conditional Certified Reserve Capacity, evidence that any necessary Environmental Approvals have been granted or evidence supporting the Market Participant's expectation that any necessary Environmental Approvals will be granted in time to have the Facility meet its Reserve Capacity Obligations by the date specified in clause 4.10.1(c)(iii)(7); and
    - iii. the Key Project Dates occurring after the date the request is submitted, including, if applicable, but not limited to:
      - when all approvals will be finalised or, in the case of Interruptible Loads and Demand Side Programmes all required contracts will be in place;
      - 2. when financing will be finalised;
      - when site preparation will begin;
      - 4. when construction will commence:
      - when generating equipment or Dispatchable Load equipment will be installed or, in the case of Interruptible Loads and Demand Side Programmes, all required control equipment will be in place;
      - 6. when the Facility, or part of the Facility, will be ready to undertake Commissioning Tests; and

- 7. when the Facility, or part of the Facility, will have completed all Commissioning Tests and be capable of meeting Reserve Capacity Obligations in full;
- (d) if the Facility is a Registered Facility that will be decommissioned prior to the date specified in clause 4.1.30(a) for the Reserve Capacity Cycle to which the application relates, the planned decommissioning date;
- (dA) a description of the main components of the Facility;
- (e) for a generation system other than an Intermittent Generator:
  - i. the capacity of the Facility and the temperature dependence of that capacity;
  - ii. the maximum sent out capacity, net of Intermittent Loads, embedded and Parasitic Loads, that can be guaranteed to be available for supply to the relevant Network from the Facility when it is operated normally at an ambient temperature of 41°C;
  - iii. the maximum sent out capacity, net of Intermittent Loads, embedded and Parasitic Loads, beyond the capacity described in (ii), that can be made available for supply to the relevant Network from the Facility at an ambient temperature of 41°C and any restrictions on the availability of that capacity, including limitations on duration:
  - iv. at the option of the applicant, the method to be used to measure the ambient temperature at the site of the Facility for the purpose of defining the Reserve Capacity Obligation Quantity, where the method specified may be either:
    - a publicly available daily maximum temperature at a location representative of the conditions at the site of the Facility as reported daily by a meteorological service; or
    - a daily maximum temperature measured at the site of the generator by the SCADA system operated by System Management.

(Where no method is specified, a temperature of 41°C will be assumed);

- subject to clause 4.10.2, details of primary and any alternative fuels, including details and evidence of both firm and non-firm fuel supplies and the factors that determine restrictions on fuel availability that could prevent the Facility operating at its full capacity;
- vi. the expected forced and unforced outage rate based on manufacturer data; and

- vii. for Facilities that have operated for at least 12 months, the forced and unforced outage rate of the Facility;
- (f) for Interruptible Loads, Demand Side Programmes and Dispatchable Loads:
  - the Reserve Capacity the Market Participant expects to make available from each of up to 3 blocks of capacity;
  - ii. the maximum number of hours per year the Interruptible Load,
     Demand Side Programme or Dispatchable Load is available to provide Reserve Capacity, where this must be at least 24 hours;
  - iii. the maximum number of hours per day that the Interruptible Load,
    Demand Side Programme or Dispatchable Load is available to
    provide Reserve Capacity if called, where this must be:
    - 1. not less than four hours; and
    - 2. not more than the maximum of the periods specified in subclause (vi);
  - iv. the maximum number of times the Interruptible Load, Demand Side Programme or Dispatchable Load can be called to provide Reserve Capacity during a 12 month period, where this must be at least six times:
  - v. the minimum notice period required for dispatch of the Interruptible Load, Demand Side Programme or Dispatchable Load, where this must not be more than 4 hours; and
  - vi. the periods when the Interruptible Load, Demand Side Programme or Dispatchable Load can be dispatched, which must include the period between noon and 8:00 PM on all Business Days;
- (g) for all Facilities:
  - i. any restrictions on the availability of the Facility due to staffing constraints; and
  - ii. any other restrictions on the availability of the Facility;
- (h) whether the application relates to confirmation of Conditional Certified Reserve Capacity;
- (i) whether the applicant wishes to nominate the use of the methodology described in clause 4.11.2(b), in place of that described in clause 4.11.1(a), in assigning the Certified Reserve Capacity or Conditional Certified Reserve Capacity to apply to a Scheduled Generator or a Non-Scheduled Generator;
- (j) whether the Facility will be subject to a Network Control Service contract-: and

- (k) for a Balancing Facility, evidence of the extent to which the Facility will meet the applicable Balancing Facility Requirements.
- 4.10.2. For the purpose of clause 4.10.1(e)(v), an applicant may not claim that a Facility has an alternative fuel unless the Facility has on-site storage, or uninterruptible supply of that fuel, sufficient to maintain 12 hours of operation at the level of capacity specified in clause 4.10.1(e)(ii).

# 4.11. Setting Certified Reserve Capacity

- 4.11.1. Subject to clauses 4.11.7 and 4.11.12, the IMO must apply the following principles in assigning a quantity of Certified Reserve Capacity to a Facility for the Reserve Capacity Cycle for which an application for Certified Reserve Capacity has been submitted in accordance with sectionclause 4.10:
  - (a) subject to clause 4.11.2, the Certified Reserve Capacity for a Scheduled Generator for a Reserve Capacity Cycle must not exceed the IMO's reasonable expectation of the amount of capacity likely to be available, after netting off capacity required to serve Intermittent Loads, embedded loads and Parasitic Loads, for Peak Trading Intervals on Business Days in the period from the:
    - start of December for Reserve Capacity Cycles up to and including 2009; or
    - ii. trading day starting on 1 October for Reserve Capacity Cycles from 2010 onwards
    - in Year 3 of the Reserve Capacity Cycle to the end of July in Year 4 of the Reserve Capacity Cycle, assuming an ambient temperature of 41°C;
  - (b) where the Facility is a generation system (other than an Intermittent Generator), the Certified Reserve Capacity must not exceed the sum of the capacities specified in clauses 4.10.1(e)(ii) and 4.10.1(e)(iii), and must not exceed the unconstrained level of network access as provided in clause 4.10.1(bA);
  - (c) the IMO must not assign Certified Reserve Capacity to a Facility for a Reserve Capacity Cycle if:
    - for Reserve Capacity Cycles up to and including 2009 that Facility is not operational or is not scheduled to commence operation for the first time so as to meet its Reserve Capacity Obligations by 30 November of Year 3 of that Reserve Capacity Cycle;
    - ii. for Reserve Capacity Cycles from 2010 onwards that Facility is not operational or is not scheduled to commence operation for the first time so as to meet its Reserve Capacity Obligations by 1 October of Year 3 of that Reserve Capacity Cycle; or

- that Facility will cease operation permanently, and hence cease to meet Reserve Capacity Obligations, from a time earlier than 1 August of Year 4 of that Reserve Capacity Cycle;
- iv. that Facility already has Capacity Credits assigned to it under
   Clause 4.28C for the Reserve Capacity Cycle; or
- v. that Facility is an Interruptible Load and, based on applications accepted under clauses 2.29.5D and 2.29.5K (as applicable), the Facility will be associated with a Demand Side Programme for any period when Reserve Capacity Obligations would apply for the Facility for the Reserve Capacity Cycle;
- (d) [Blank]
- (e) [Blank]
- (f) the IMO must not assign Certified Reserve Capacity to a Facility that is not expected to be a Registered Facility by the time its Reserve Capacity Obligations for the Reserve Capacity Cycle would take effect;
- (g) in respect of a Facility that will be subject to a Network Control Service contract, the IMO must not assign Certified Reserve Capacity in excess of the capacity that the IMO believes that Facility can usefully contribute given its location and any network constraints that are likely to occur;
- (h) the IMO may decide not to assign Certified Reserve Capacity to a Facility if:
  - i. the Facility has operated for at least 36 months and has had a Forced Outage rate of greater than 15% or a combined Planned Outage rate, and Forced Outage rate and Equipment Test rate of greater than 30% over the preceding 36 months; or
  - ii. the Facility has operated for less than 36 months, or is yet to commence operation, and the IMO has cause to believe that over a period of 36 months the Facility is likely to have a Forced Outage rate of greater than 15% or a combined Planned Outage rate, and Forced Outage rate and Equipment Test rate of greater than 30%,

where the Planned Outage rate, and the Forced Outage rate and Equipment Test rate for a Facility for a period will be calculated in accordance with the Power System Operation Procedure. The IMO may consult with System Management in deciding whether or not to refuse to grant Certified Reserve Capacity under this paragraph;

- (i) the Certified Reserve Capacity
- (ii) assigned to a Facility is to be expressed to a precision of 0.001 MW; and
- (j) the Certified Reserve Capacity for a Demand Side Programme for a Reserve Capacity Cycle must not exceed the IMO's reasonable

expectation of the amount of capacity likely to be available from that Facility during the periods specified in clause 4.10.1(f)(vi), after netting off capacity required to serve minimum loads, from the Trading Day starting on 1 October in Year 3 of the Reserve Capacity Cycle to the end of July in Year 4 of the Reserve Capacity Cycle.

- 4.11.2. Where an applicant submits an application for Certified Reserve Capacity, in accordance with sectionclause 4.10, and nominates under clause 4.10.1(i) to have the IMO use the methodology described in clause 4.11.2(b) to apply to a Scheduled Generator or a Non-Scheduled Generator, the IMO:
  - (a) may reject the nomination if the IMO reasonably believes that the capacity of the Facility has permanently declined, or is anticipated to permanently decline prior to or during the Reserve Capacity Cycle to which the Certified Reserve Capacity relates. If the IMO rejects such a nomination it must process the application as it would if no nomination to use the method described in clause 4.11.2(b) had been made; and
  - (b) <u>subject to clause 4.11.12</u>, if it has not rejected the nomination under paragraph (a), must assign a quantity of Certified Reserve Capacity to the relevant Facility for the Reserve Capacity Cycle equal to the Relevant Level determined in accordance with clause 4.11.3A, but subject to clauses 4.11.1(b), 4.11.1(c), 4.11.1(f), 4.11.1(g), 4.11.1(h) and 4.11.1(i).
- 4.11.2A. Where an applicant nominates under clause 4.10.3(c) to have the IMO use an alternative value to that specified in clause 4.10.3(b) the IMO:
  - (a) may reject the proposed alternative value if it does not consider the reasons provided in accordance with clause 4.10.3(d) provide sufficient evidence that an alternative value is required; and
  - (b) must use the alternative value in the calculation of the Required Level if it does not reject the proposed alternative value under clause 4.11.2A(a).

### 4.11.3. [Blank]

- 4.11.3A. The Relevant Level in respect of a Facility at a point in time is determined by the IMO doing the following in the following order these steps:
  - (a) take all the Trading Intervals that fell within the last three years up to, and including, the last Hot Season, excluding any Trading Intervals where the Facility either:
    - i. was owned, controlled or operated by a Market Participant other than the Electricity Generation Corporation Verve Energy and:
      - was affected by a Planned Outage or Consequential Outage as notified under clause 7.13.1A; or

- 2. was issued a Dispatch Instruction from System Management as notified under clause 7.13.1(c); or
- ii. was owned, controlled or operated by the Electricity Generation Corporation Verve Energy and:
  - 1. was affected by a Planned Outage or Consequential Outage as notified under clause 7.13.1A; or
  - 2. was issued an instruction from System Management to deviate from the Dispatch Plan or change its commitment or output as notified under clause 7.13.1C;
- (b) determine the amount of electricity (in MWh) sent out by the Facility in accordance with Meter Data Submissions received by the IMO in accordance with clause 8.4 for all Trading Intervals occurring during the period referred to in <a href="stepclause 4.11.3A">stepclause 4.11.3A</a>(a);
- (c) if the Facility has not entered service, or if it entered service during or after the period referred to in <a href="stepclause 4.11.3A">stepclause 4.11.3A</a>(a), estimate in accordance with the Reserve Capacity Procedure the amount of electricity (in MWh) that would have been sent out by the Facility, had it been in service, for all Trading Intervals occurring during the period referred to in <a href="stepclause 4.11.3A">stepclause 4.11.3A</a>(a) which are prior to it entering service. The IMO must use the estimates included in the expert report provided in accordance with clause 4.10.3 unless it reasonably believes that the information used to derive the estimates included in the report is inaccurate or the methodology applied is not consistent with the Market Rules; and
- (cA) if, during the period described in stepclause 4.11.3A(a), the Facility's output was reduced in order to comply with a Dispatch Instruction from System Management, issued in accordance with clause 7.7, use:
  - i. the estimated decrease (in MWh) in the output of each Facility, by Trading Interval, as a result of System Management Dispatch Instructions, provided by System Management in accordance with clause 7.13.1(eB); and
  - ii. the amount of electricity (in MWh) sent out for the Facility determined from Metered Data Submissions received by the IMO in accordance with clause 8.4 for all the Trading Intervals that were excluded under stepclause 4.11.3A(a)(i)(2),

to estimate the amount of electricity (in MWh) that would have been sent out by the Facility, had it not complied with the Dispatch Instruction for all the Trading Intervals that were excluded under <a href="mailto:stepclause-4.11.3A">stepclause 4.11.3A</a>(a)(i.)(2);

(cB) if, during the period described in stepclause 4.11.3A(a), the Facility's output was reduced in order to comply with an instruction from System

Management under clause 7.6A.3(a) to deviate from the Dispatch Plan or change its commitment or output, use:

- i. the estimated decrease (in MWh) in the output of each Facility, by Trading Interval, as a result of an instruction from System Management in accordance with clause 7.6A.3(a), where this information has been either:
  - provided by System Management in accordance with clause 7.13.1C(b) for the Trading Intervals that were excluded under stepclause 4.11.3A(a)(ii)(2), where actual data for the site of the Facility has been provided to System Management under clause 7.7.5B; or
  - determined by the IMO in accordance with the Reserve Capacity Procedure for all the Trading Intervals that were excluded under <u>stepclause 4.11.3A(a)</u> (ii)(2), where actual data for the site of the Facility has not been made available to System Management under clause 7.7.5B; and
- ii. the amount of electricity (in MWh) sent out for the Facility determined from Meter Data Submissions received by the IMO in accordance with clause 8.4 for all the Trading Intervals that were excluded under stepclause 4.11.3A(a)(ii)(2),

to estimate the amount of electricity (in MWh) that would have been sent out by the Facility had it not complied with System Management's instruction for all the Trading Intervals that were excluded under <a href="mailto:step\_clause">step\_clause</a> <a href="mailto:4.11.3A">4.11.3A</a>(a)(ii)(2); and

- (d) set the Relevant Level as double the sum of the quantities determined in stepclauses 4.11.3A(a) (b), (c), (cA) and (cB) divided by the total number of Trading Intervals identified in stepclauses 4.11.3A(a), (cA) and (cB).
- 4.11.3B. The Required Level (which for an upgraded Facility is calculated for the Facility as a whole):
  - (a) for Facilities assigned Certified Reserve Capacity under clause 4.11.1(a), is calculated by the IMO using the Capacity Credits assigned to the Facility and temperature dependence information submitted to the IMO under clause 4.10.1(e)(i) or provided in Standing Data (where available) and converted to a sent out basis to 41°C;
  - (b) for Facilities assigned Certified Reserve Capacity under clause 4.11.2(b), is either:
    - i. the value, expressed in MW as a sent out value, that equals the 5 percent probability of exceedance of expected generation output for

- the Facility, submitted to the IMO in the report described in clause 4.10.3(b);or
- ii. the proposed alternative value, expressed in MW as a sent out value, provided in the report described in clause 4.10.3(c), where the IMO has accepted the proposed alternative value under clause 4.11.2A; and
- (c) for Demand Side Programmes, is calculated by the IMO using the Facility's Relevant Demand minus the Capacity Credits assigned to the Facility.
- 4.11.4. Subject to clause 4.11.12, wWhen assigning Certified Reserve Capacity to an Interruptible Load, Demand Side Programme or Dispatchable Load, the IMO must indicate what Availability Class is applicable to that Reserve Capacity where this Availability Class must reflect the maximum number of hours per year that the capacity will be available and must not be Availability Class 1.
- 4.11.5. In assigning Certified Reserve Capacity to a Facility, the IMO may:
  - (a) require Network Operators to confirm that the data and information related to clause 4.10.1(bA) provided to the IMO by or on behalf of an applicant for Certified Reserve Capacity is complete, accurate and up to date; and
  - (b) request that a Network Operator provide the IMO within a reasonable timeframe with any other information held by the Network Operator that the Network Operator reasonably considers is relevant to the application,

and Network Operators must use their best endeavours to cooperate with such requests and provide the information requested within the timeframe specified by the IMO in the request.

- 4.11.6. The IMO must accredit not less than two independent experts at any time to prepare reports on the estimated Reserve Capacity of Intermittent Generators that are yet to commence operation, at the expense of the applicant. The IMO:
  - (a) must publish the contact details of these accredited independent experts on the Market Web Site:
  - (b) must ensure that any expert it accredits is familiar with the meaning of the value to be estimated; and
  - (c) can remove accreditation of an expert at any time, but must allow the expert to complete any work in progress as an accredited expert at the time accreditation is removed.
- 4.11.7. Subject to clause 4.11.9, for the first Reserve Capacity Cycle, the Certified Reserve Capacity assigned to all Western Power generation systems is 3,224 MW. This amount is not to be allocated to individual generation systems, but is instead to be associated with Western Power's portfolio of Scheduled Generators and UNon-scheduled Generators.

- 4.11.8. Western Power must notify the IMO of the quantity of Certified Reserve Capacity it considers it has available for the period from the Trading Day commencing on 1 November 2007 and until the Trading Day ending on 1 August 2008 ("relevant period") by the date and time specified in clause 4.1.11, including supporting evidence, where that quantity:
  - (a) must only include capacity provided by Facilities that are committed to be available during the relevant period; and
  - (b) must include any capacity that Western Power has procured under contracts with third parties that give Western Power the right to dispatch the capacity during the relevant period.
- 4.11.9. The IMO must review the information provided by Western Power in accordance with clause 4.11.8 and if the IMO, taking into account the information provided by Western Power under clause 4.11.8, considers that the capacity available to Western Power during the relevant period will be different to the Certified Reserve Capacity assigned to Western Power's generation systems under clause 4.11.7, then the IMO may review that value.
- 4.11.10. Upon the receipt of advice provided in accordance with clause 4.10.4 for a Facility that has already been assigned Capacity Credits for the relevant Capacity Year, the IMO must review the information provided and decide whether it is necessary for the IMO to reassess the assignment of Certified Reserve Capacity to the Facility. If this information would have resulted in the IMO assigning a lower, non-zero level of Certified Reserve Capacity the IMO must reduce the Capacity Credits assigned to that Facility accordingly and must advise the Market Participant within 90 days of receiving the submission.
- 4.11.11. Where the IMO reassesses the amount of Certified Reserve Capacity assigned to a Facility under clause 4.11.10 based on information provided to the IMO under clause 4.10.4 the Market Participant will pay a Reassessment Fee to cover the cost of processing the reassessment.
- 4.11.12. The IMO must not assign Certified Reserve Capacity to a Balancing Facility with a rated capacity equal to or greater than 10MW unless the IMO is satisfied the Facility is likely to be able to meet the Balancing Facility Requirements.
- 4.25.7. In requesting System Management to conduct a Reserve Capacity ‡Test, the IMO must provide System Management with the following information:
  - (a) the Facility to be tested;
  - (b) the fuel to be used by the Facility during the test where applicable; and
  - (c) the time interval during which the test is proposed to be conducted, where this interval must begin not less than two Business Days after the time the IMO issues the request to System Management.

- 4.25.8. If the IMO requests that a Reserve Capacity tTest be conducted by System Management in accordance with this clause 4.25, then System Management must notify the IMO within one Business Day as to whether it is possible to conduct the Reserve Capacity tTest without endangering Power System Security and Power System Reliability within the time interval described in clause 4.25.7(c), and if not, System Management must provide to the IMO:
  - (a) justification as to why the Reserve Capacity ‡Test cannot be conducted; and
  - (b) an alternative time interval during which the <a href="Reserve Capacity">Reserve Capacity</a> to conducted, where this must be the earliest time that the <a href="Reserve Capacity">Reserve Capacity</a> to the performed without endangering Power System Security and Power System Reliability.
- 4.25.9. In conducting a Reserve Capacity ‡Test, System Management must:
  - (a) subject to paragraphs (b), (c) and (d), endeavour to conduct the Reserve Capacity ‡Test without warning;
  - (b) allow sufficient time for the Market Participant to schedule fuel that it is not required under these Market Rules to be stored on-site;
  - (c) allow sufficient time for switching a Facility from one fuel to an alternative fuel if operation using the alternative fuel is being tested;
  - (d) in the case of an Interruptible Load or a Demand Side Programme, give at least as much notice as is specified under clause 4.10.1(f)(v) to allow for arrangements to be made for the Facility to be triggered;
  - (e) report to the IMO whether the <u>Reserve Capacity</u> <u>‡T</u>est was successfully performed;
  - (f) maintain adequate records of the Reserve Capacity ‡Test to allow independent verification of the test results; and
  - (g) conduct thea Reserve Capacity test in the time interval specified by the IMO in accordance with clause 4.25.7(c) unless System Management has notified the IMO of an alternative time interval in accordance with clause 4.25.8, in which case, System Management must conduct the Reserve Capacity test in the time interval specified in accordance with clause 4.25.8(b); and
  - (h) issue an Operating Instruction to increase the Facility's output or decrease
     its consumption to a level specified by, or referred to in, the Operating Instruction.
- 4.25.10. [Blank]Where a Facility, excluding a Demand Side Programme, is tested in accordance with this clause 4.25, the Dispatch Schedule for that Facility during the period of the test is to reflect the energy scheduled in the test.

- 4.25.11. Every three months the IMO must publish details of:
  - (a) Facilities that have undergone a Reserve Capacity tTested during the preceding three months; and
  - (b) whether any of those Reserve Capacity Tests were delayed by System Management and the reasons for the delay as given by System Management.
- 4.25.12. The IMO may use the results of Reserve Capacity tests under this clause 4.25 in respect of a Facility in assigning Certified Reserve Capacity and setting Reserve Capacity Obligation Quantities for the Facility for subsequent Reserve Capacity Cycles.
- 4.25.13. The IMO must monitor at all times the on-site fuel storage of each Scheduled Generator required to comply with clause 4.10.2. The IMO may:
  - (a) require the relevant Market Participant to submit a weekly report of the current fuel level;
  - (b) have a representative of the IMO conduct an on-site inspection to verify the fuel storage level; and
  - (c) instruct System Management to use its SCADA systems to monitor the fuel storage level and to report any failure of any Market Participant to comply with clause 4.10.2 to the IMO.
- 4.25.14. The IMO must document the procedure to be followed in performing Reserve Capacity \*Tests in the Reserve Capacity Procedure, and the IMO, System Management, and Market Participants must follow that documented Market Procedure in the performance of Reserve Capacity \*Tests.
- 4.26.2. The IMO must determine the net STEM shortfall ("**Net STEM Shortfall**") in Reserve Capacity supplied by each Market Participant p holding Capacity Credits associated with a generation system in each Trading Interval t of Trading Day d and Trading Month m as:

```
SF(p,m,d,t) = Max(RTFO(p,d,t), RCOQ(p,d,t) - A(p,d,t)) + Sum(f \in F + Max(0,B(f,d,t) - C(f,d,t)) - RTFO(f,d,t)
```

Where:

```
\begin{split} &A(p,d,t) = Min(RCOQ(p,d,t), \ CAPA(p,d,t)); \\ &B(f,d,t) = Min(RCOQ(f,d,t) - RTFO(f,d,t), \ DSQ(f,d,t)); \\ &C(f,d,t) = Min(DSQ(f,d,t), \ MSQ(f,d,t)); \end{split}
```

RCOQ(p,d,t) for Market Participant p and Trading Interval t of Trading Day d is equal to:

- the total Reserve Capacity Obligation Quantity of Market
  Participant p's unregistered facilities that have Reserve Capacity
  Obligations, excluding Loads that can be interrupted on request;
  plus
- (b) the sum of the product of:
  - i. the factor described in clause 4.26.2B as it applies to Market Participant p's Registered Facilities; and
  - ii. the Reserve Capacity Obligation Quantity for each Facility.

for all Market Participant p's Registered Facilities, excluding Demand Side Programmes,

RCOQ (f,d,t) for Facility f and Trading Interval t of Trading Day d is equal to the product of the factor described in clause 4.26.2B as it applies to Facility f and the Reserve Capacity Obligation Quantity for Facility f.

CAPA(p,d,t) is for Market Participant p and Trading Interval t of Trading Day d:

- (c) equal to RCOQ(p,d,t) for a Trading Interval where the STEM auction has been suspended by the IMO in accordance with clause 6.10;
- (d) subject to paragraph (c), for the case where Market Participant p is not the Electricity Generation Corporation Verve Energy, the sum of:
  - the sum of the Reserve Capacity Obligation Quantities in Trading Interval t of that Market Participant's Interruptible Loads; plus
  - ii. the MW quantity calculated by doubling the net MWh quantity of energy sent out by Facilities registered by that Market Participant during that Trading Interval calculated as the Net Contract Position less the shortfall as indicated by the applicable Resource Plan; plus
  - iiA. if a STEM submission does not exist for that Trading Interval, the MW quantity calculated by doubling the total MWh quantity of energy to be consumed by that Market Participant including demand associated with any Interruptible Load, but excluding demand associated with any Dispatchable Load during that Trading Interval as indicated by the applicable Resource Plan; plus
  - iii. the MW quantity calculated by doubling the total MWh quantity covered by the STEM Offers which were not scheduled and the STEM Bids which were scheduled in the relevant STEM Auction, determined by the IMO for that Market Participant under clause 6.9 for Trading Interval t,

- corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus
- iv. double the total MWh quantity to be provided as Ancillary Services as specified by the IMO in accordance with clause 6.3A.2(e)(i) for that Market Participant corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus
- v. the greater of zero and (BSFO(p,d,t) RTFO(p,d,t)); and
- (e) subject to paragraph (c), for the case where Market Participant p is the Electricity Generation Corporation Verve Energy, the sum of:
  - i. the sum of the Reserve Capacity Obligation Quantities in Trading Interval t of that Market Participant's Interruptible Loads; plus
  - ii. the MW quantity calculated by doubling the total MWh quantity of the Net Contract Position quantity of that Market Participant for Trading Interval t, corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus
  - the MW quantity calculated by doubling the total MWh quantity of the STEM Offers which were not scheduled and the STEM Bids which were scheduled in the relevant STEM Auction, determined by the IMO for that Market Participant under clause 6.9 for Trading Interval t, corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus
  - iv. double the total MWh quantity to be provided as Ancillary Services as specified by the IMO in accordance with clause 6.3A.2(e)(i) for the Electricity Generation Corporation Verve Energy corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus
  - v. the greater of zero and (BSFO(p,d,t) RTFO(p,d,t)).

BSFO(p,d,t) is the total MW quantity of Forced Outage associated with Market Participant p before the STEM Auction for Trading Interval t of Trading Day d, where this is the sum over all the Market Participant's Registered Facilities of the lesser of the Reserve Capacity Obligation Quantity of the Facility for Trading Interval t and the MW Forced Outage of the Facility for Trading Interval t as provided to the IMO by System Management in accordance with clause 7.3;

RTFO(p,d,t) is the total MW quantity of Forced Outage associated with Market Participant p in real-time for Trading Interval t of Trading Day d, where this is the sum over all the Market Participant's Registered Facilities

of the lesser of the Reserve Capacity Obligation Quantity of the Facility for Trading Interval t and the MW Forced Outage of the Facility for Trading Interval t as provided to the IMO by System Management in accordance with clause 7.13.1A-(b);

RTFO(f,d,t) is the total MW quantity of Forced Outage associated with Facility f in real-time for Trading Interval t of Trading Day d, where this is the lesser of the Reserve Capacity Obligation Quantity of the Facility f for Trading Interval t and the MW Forced Outage of the Facility f for Trading Interval t as provided to the IMO by System Management in accordance with clause 7.13.1A (b);

DSQ(f,d,t) is a MW quantity calculated by doubling the MWh value of Facility f's Dispatch Schedule for Trading Interval t of Trading Day d;

MSQ(f,d,t) is a MW quantity calculated by doubling the greater of zero and the MWh value of Facility f's Metered Schedule for Trading Interval t of Trading Day d, corrected for Loss Factor adjustments applicable to that Facility so as to be a sent out quantity.

## 5.7. Network Control Service Dispatch

- 5.7.1. [Blank]
- 5.7.2. System Management may call upon the relevant Facility to provide services under a Network Control Services Contract in accordance with the terms of the contract, as advised to it by the Network Operator in accordance with clause 5.3A.3 and amended in accordance with clause 5.3A.4.
- 5.7.3. [Blank]
- 5.7.4. System Management must <u>issue an Operating Instruction in order to</u> document the procedure it will follow in calling <u>call</u> on Registered Facilities to provide services under Network Control Service Contracts in the Power System Operation Procedure, and System Management must follow that documented Market Procedure when calling on Registered Facilities to provide services under Network Control Service Contracts.
- 5.9.3. The information provided by the IMO to a Network Operator under clause 5.9.2 must include, for each relevant Facility and Trading Interval:
  - (a) the unique identifier of the Network Control Service Contract under which the Dispatch Instruction was issued;
  - (b) the MWh quantity by which the Facility was instructed by System Management to increase its output or reduce its consumption, as specified in clause 6.17.6(e)(i)7.13.1(dA);
  - (c) the per MWh price paid by the IMO for the quantity dispatched under the Network Control Service Contract, as specified in clause 6.17.6(e)(ii); and
  - (d) the total amount paid by the IMO to the Market Participant for the quantity dispatched under the Network Control Service Contract, determined as the product of the values specified in clauses 5.9.3(b) and 5.9.3(c).

# 6. The Energy Market

- 6.1. [Blank]
- 6.2. Bilateral Submission Timetable and Process
- 6.2.4A. [Blank]
- 6.2.4B. A Market Generator may cancel Bilateral Submission data held by the IMO for any Trading Interval of the Trading Day during the time interval specified in clause 6.2.1.
- 6.2.4C. [Blank]The IMO must confirm to the Market Generator any cancellation of Bilateral Submission data made in accordance with clause 6.2.4B. Where such cancellation is made then the IMO must remove the relevant data from the Bilateral Submission.
- 6.4.6. In the event of a software system failure at the IMO site or its supporting infrastructure, or any delay in receiving any of the information as described in clauses 7.2.3B or 7.3.4, which prevents the IMO from completing the relevant processes, the IMO may extend one or more of the timelines prescribed in sectionclauses 6.2, 6.3A, 6.3B and this sectionclause 6.4, subject to:
  - (a) any such extension not resulting in more than a two hour delay to any of the timelines prescribed in sectionclauses 6.2, 6.3A, 6.3B and this sectionclause 6.4; and
  - (b) any such extension maintaining a 50 minute window between the timelines prescribed in <u>clauses</u> 6.3B.1(a) and 6.3B.1(b) as extended by the IMO<sub>3</sub>;

and the IMO must advise Rule Participants of any such extension as soon as practicable.

### 6.5. Resource Plan Submission Timetable and Process

- 6.5.1. Market Participants with Scheduled Generators, including other than the Electricity Generation Corporation Verve Energy but only in respect of those of it Stand Alone Facilities which are Scheduled Generators, may submit Resource Plan Submission data for a Trading Day to the IMO between:
  - (a) 11:00 AM on the Scheduling Day, with the exception that if the IMO has delayed any timelines in accordance with clause 6.4.6, the IMO may at its discretion extend this time up to 1:00 PM on the Scheduling Day; and
  - (b) 12:50 PM on the Scheduling Day, with the exception that if:
    - i. a software system failure at the IMO site has prevented any Market Participant from submitting a Resource Plan; or

- ii. a software system failure at a Market Participant site has prevented that Market Participant from submitting a Resource Plan and that Market Participant has informed the IMO of this failure by 12:30 PM on the Scheduling Day; or
- iii. the opening time for Resource Plan Submissions was delayed, the IMO may at its discretion extend the closing time up to 3:00 PM on the Scheduling Day.
- 6.5.1A. Market Generators with Registered Facilities that are not undergoing a Commissioning Test, except those with only Intermittent Generators, or Market Customers with Dispatchable Loads, must provide the IMO with a Resource Plan Submission, by-either:
  - (a) via-submitting Resource Plan Submissions; or
  - (b) in accordance with clause 6.5.1B.
- 6.5.1B. Where the IMO holds a Standing Resource Plan Submission for a Market Participant as at the time specified in clause 6.5.1(a) where that Standing Resource Plan Submission is applicable to the Trading Day to which clause 6.5.1 relates then, provided that Standing Resource Plan Submission data is accepted by the IMO in accordance with clause 6.5.2, it becomes the Resource Plan Submission with respect to the Trading Day as at the time specified in clause 6.5.1(a).
- 6.5.1C. Market Generators with only Intermittent Generators may provide the IMO with a Resource Plan Submission, unless undergoing a Commissioning Test, either via submitting Resource Plan Submissions or in accordance with clause 6.5.1B.
- 6.5.2. When the IMO receives Resource Plan Submission data from a Market Participant during the time interval described in clause 6.5.1 it must as soon as practicable communicate to that Market Participant whether or not the IMO accepts the data as conforming to the requirements of clause 6.11.2. Where the IMO accepts the data then the IMO must revise the Resource Plan Submission to reflect that data.
- 6.5.3. Where the IMO has issued a Market Advisory concerning an IT systems failure at the IMO, the IMO may accept Resource Plan submissions from Market Participants by email or facsimile, where this is in accordance with the applicable Contingency Market Procedure.
- 6.5.3A. Where clause 6.5.3 applies, the times at which a Market Participant may make a submission will remain in accordance with clause 6.5.1.
- 6.5.4. If the IMO has not accepted a Resource Plan Submission for a Trading Day by the closing time specified in clause 6.5.1(b) from a Market Participant that is required to make a Resource Plan Submission or a Market Participant covered by clause

6.5.1C, then it the IMO must prepare a default Resource Plan for that Market Participant which must include, for each Trading Interval on the Trading Day:

- (a) in respect of a Market Participant other than Verve Energy:
  - i. all the Market Participant's Scheduled Generators and Non-Scheduled Generators having a scheduled output of zero;
  - all Dispatchable Loads having a scheduled consumption of zero;
     and
  - the level of the supply shortfall required pursuant to clause 6.11.1(e) equal to the total Net Contract Position; or
- (b) <u>all Stand Alone Facilities having a scheduled output of zero</u>.

<del>(c)</del>

# 6.5A. [Blank] Balancing Data Submission Timetable and Process

- 6.5A.1. Market Participants other than the Electricity Generation Corporation that are Market Generators, or that are Market Customers with Dispatchable Loads or Demand Side Programmes, may submit Balancing Data Submission data for a Trading Day to the IMO between:
  - (a) 11:00 AM on the Scheduling Day, with the exception that if the IMO has delayed any timelines in accordance with clause 6.4.6, the IMO may at its discretion extend this time up to 1:00 PM on the Scheduling Day; and
  - (b) 12:50 PM on the Scheduling Day, with the exception that if:
    - a software system failure at the IMO site or its supporting infrastructure has prevented any Rule Participant from submitting a Balancing Data Submission; or
    - ii. a software system failure at a Rule Participant site or its supporting infrastructure has prevented that Rule Participant from submitting a Balancing Data Submission and that Rule Participant has informed the IMO of this failure by 12:30 PM on the Scheduling Day; or
    - iii. the opening time for Resource Plan Submissions was delayed;

the IMO may at its discretion extend the closing time to up to 3:00 PM on the Scheduling Day.

6.5A.1A. Where the IMO holds Standing Balancing Data for a Market Participant as at the time specified in clause 6.5A.1(a), where that Standing Balancing Data is applicable to the Trading Day to which clause 6.5A.1 relates and where that Standing Balancing Data conforms to the requirements of clause 6.11A.2, the IMO must make it the Balancing Data Submission with respect to the Trading Day as at the time specified in clause 6.5A.1(a).

6.5A.2. When the IMO receives Balancing Data Submission data from a Market Participant during the time interval described in clause 6.5A.1, or a Balancing Data Submission is derived from Standing Balancing Data in accordance with clause 6.5A.1A, it must as soon as practicable communicate to that Market Participant whether or not the IMO accepts the data as conforming to the requirements of clause 6.11A.2. Where the IMO accepts the data then the IMO must revise the Balancing Data Submission to reflect that data.

# 6.5C. Standing Resource Plan Submission Timetable and Process

- 6.5C.1A. All references to a Market Participant in this clause 6.5C include Verve Energy, but only in respect of its Stand Alone Facilities.
- 6.5C.1. A Market Participant may submit Standing Resource Plan Submission data on any day between the times of:
  - (a) 1:00 PM; and
  - (b)  $3:50 \text{ PM}_{\frac{1}{7}}$

where, if accepted by the IMO, the data will apply from the commencement of the subsequent Scheduling Day.

- 6.5C.2. When the IMO receives Standing STEM Resource Plan data from a Market Participant during the time interval described in clause 6.5C.1, it must as soon as practicable:
  - (a) communicate to that Market Participant whether or not the IMO accepts the received data as conforming to the requirements of clause 6.11.2; and
  - (b) where the IMO accepts the data then the IMO must revise the Standing Resource Plan Submission to reflect that data.
- 6.5C.3. Standing Resource Plan Submission data must be associated with a day of the week and when used as a Resource Plan Submission will only apply to Trading Days commencing on that day of the week.
- 6.5C.4. A Market Participant may cancel Standing Resource Plan Submission data held by the IMO for any Trading Interval of the Trading Day during the time interval specified in clause 6.5C.1.
- 6.5C.5. The IMO must confirm to the Market Participant any cancellation of Standing Resource Plan Submission data made in accordance with clause 6.5C.4. Where such cancellation is made then the IMO must remove the relevant data from the Resource Plan Submission.
- 6.5C.6. If a Market Participant's ability to consume or supply energy in any Trading Interval of a Trading Day is less than the maximum level of its supply or

consumption as indicated by its Standing Resource Plan Submission then that Market Participant must either:

- (a) submit to the IMO Standing Resource Plan Submission data so as to revise its Standing Resource Plan Submission to comply with this clause 6.5C.6; or
- (b) for each Trading Interval for which the Standing Resource Plan Submission over-states the Market Participant's supply or consumption capabilities, submit valid Resource Plan Submission data to the IMO on the Scheduling Day immediately prior to that Trading Day.

### 6.5C.7. A Market Participant, other than Verve Energy, must ensure that either:

<u>(a)</u>

<u>Target \* LF = (NCP + DQ - NonSchGen - Shortfall)</u> ± Tol

#### Where:

<u>Target = the sum of the energy quantities submitted by the Market Participants under clause 6.11.1(b)(iii)</u>

LF = the applicable Loss Factor

NCP = the Net Contract Position

DQ = the demand quantity in MWh provided by the Market Participant in accordance with clause 6.11.1(d)

NonSchGen = the amount under clause 6.11.1(a)

Tol = min(3MWh, max(0.5, 3% of NCP)).

(b)

<u>Target MW \* LF = (NCP - NonSchGen - Shortfall) \* 2+DQ ± Tol</u>

### Where:

<u>Target MW = the sum of the targets provided by the Market Participant</u> under clause 6.11.1(b)(v)

LF = applicable Loss Factor

NCP = Net Contract Position

<u>DQ</u> = the demand quantity in MW provided by the Market Participant in accordance with clause 6.11.1(dA)

NonSchGen = the amount under clause 6.11.1(a)

Shortfall = the amount under clause 6.11.1(e)

Tol = min(6MW, max(1, 3% of NCPx2)).

If on a Scheduling Day at the time described in clause 6.5.1(a), a Market Participant's Standing Resource Plan Submission applicable to any Trading

Interval of the corresponding Trading Day is inconsistent with its Net Contract Position for that Trading Interval then that Market Participant must submit valid Resource Plan Submission data to the IMO for that Trading Interval in accordance with clause 6.5.1.

# The STEM Auction Process

### 6.9. The STEM Auction

6.9.4. Where the IMO has recorded in accordance with clause 6.3B.8 that a Market Participant has not made a STEM Submission for a Trading Interval the IMO must not determine STEM Offers, or STEM Bids or MCAP Price Curves for that Market Participant in that Trading Interval.

# Resource Plans and Balancing Data

#### 6.11. Format of Resource Plans

- 6.11.1. A Market Participant submitting Resource Plan Submission data or Standing Resource Plan Submission data must ensure the submission is made in the form and manner prescribed and published by the IMO and include in the submission:
  - (a) the sum of the expected Loss Factor adjusted output of each of its Non-Scheduled Generators, in MWhthe identity of the Market Participant making the submission;
  - (aA) [Blank]in the case of:
    - Resource Plan Submission data, the Trading Day to which the submission relates; and
    - ii Standing Resource Plan Submission data, the day of the week to which the submission relates, where data provided for a day of the week relates to the Trading Day commencing on that day;
  - (b) <u>in respect offer</u> each Scheduled Generator and Dispatchable Load registered by the Market Participant:
    - i. [Blank]the name of the Facility;
    - ii. [Blank]for a Scheduled Generator, the intended times of synchronisation and de-synchronisation, expressed to the nearest minute, during the Trading Day;
    - iii. the <u>target</u> energy, <u>in MWh</u>, to be sent-out or consumed during each Trading Interval of the Trading Day included in the submission, where this amount:
      - 1. must be expressed in units of MWh;
      - must be expressed to a precision of 0.001 MWh;

- <u>31.</u> must be zero if the Facility is expected not to operate during the Trading Interval; and
- 42. must not exceed the expected capability of the Facility at that time, allowing for de-ratings and outages; and
- iv. <u>the Ramp Rate Limitthe target megawatt output of each Facility at</u> the end of each Trading Interval included in the submission; and
- v. the target MW level, in accordance with the Ramp Rate Limit, that
   each Facility must achieve and continue to operate at until the end
   of each Trading Interval included in the submission;
- (c) [Blank]for each Non-Scheduled Generator registered by the Market Participant:
  - i. the name of the Facility;
  - ii. the expected energy to be sent-out during each Trading Interval of the Trading Day included in the submission, where this amount:
    - 1. must be expressed in units of MWh;
    - must be expressed to a precision of 0.001 MWh; and
    - must not exceed the expected capability of the Facility at that time, allowing for de-ratings and outages;
- (d) the total Loss Factor adjusted demand to be consumed by that Market
  Participant for each Trading Interval including demand associated with any
  Interruptible Load, but excluding demand associated with any Dispatchable
  Load; and
- (dA) the end of Trading Interval MW level of demand resulting from the demand in clause 6.11.1(d); and
- (e) <u>other than for Verve Energy,</u> any shortfall <u>in MWh</u> for each Trading Interval between the net energy scheduled in the Resource Plan Submission and the Net Contract Position of the Market Participant.
- 6.11.2. For Resource Plan Submission data or Standing Resource Plan Submission data to be valid:
  - (a) it must conform to the format specified by the IMO under in-clause 6.11.1;
  - (aA) 48 Trading Intervals of data must be submitted for each Trading Day;
  - (aB) no energy must be scheduled from a Facility that is a Scheduled Generator for any Trading Interval in which the Facility is not synchronised as indicated by the times specified in clause 6.11.1(b)(ii);
  - (b) it must only include Facilities registered by the submitting Market Participant;

- (bA) it must not include a Generator for any Trading Interval if that Generator is under-going a Commissioning Test during that Trading Interval; and
- (c) [Blank]it must not include Interruptible Loads; and
- (d) it must meet the requirements of clause 6.5C.7.the net energy scheduled in the Resource Plan Submission data (or Resource Plan Submission data derived from Standing Resource Plan Submission data), after Loss Factor adjusting the Scheduled Generator, Non-Scheduled Generator, and Dispatchable Load energy, and taking into account shortfalls indicated in accordance with clause 6.11.1(e), for each Trading Interval included in the submission must equal the Net Contract Position of the Market Participant for that Trading Interval.

## 6.11A. Format of Balancing Data

- 6.11A.1. A Market Participant submitting Balancing Data Submission data must include in the submission:
  - (a) the identity of the Market Participant making the submission;
  - (b) for each Scheduled Generator registered by the Market Participant:
    - i. the name of the Facility;
    - ii. if the Facility is registered as being capable of running on Non-Liquid Fuel, the following prices to apply for the Trading Day:
      - 1. a Non-Liquid Supply Increase Price for Peak Trading Intervals:
      - a Non-Liquid Supply Decrease Price for Peak Trading
         Intervals, where this price must be not greater than that in (1);
      - 3. a Non-Liquid Supply Increase Price for Off-Peak Trading Intervals; and
      - 4. a Non-Liquid Supply Decrease Price for Off-Peak Trading Intervals, where this price must be not greater than that in (3),

where these prices must be not less than the Minimum STEM Price, not more than the Maximum STEM Price, and must be expressed in units of \$/MWh to a precision of \$0.01/MWh; and

- iii. if the Facility is registered as being capable of running on Liquid Fuel, the following prices to apply for the Trading Day:
  - a Liquid Supply Increase Price for Peak Trading Intervals;
  - a Liquid Supply Decrease Price for Peak Trading Intervals, ,
     where this price must be not greater than that in (1);

- a Liquid Supply Increase Price for Off-Peak Trading Intervals: and
- 4. a Liquid Supply Decrease Price for Off-Peak Trading Intervals, where this price must be not greater than that in (3),

where these prices must be not less than the Minimum STEM Price, not more than the Alternative Maximum STEM Price, and must be expressed in units of \$/MWh to a precision of \$0.01/MWh

- (c) for each Dispatchable Load registered by the Market Participant:
  - . the name of the Facility;
  - ii. the following prices to apply for the Trading Day:
    - 1. a Consumption Increase Price for Peak Trading Intervals;
    - 2. a Consumption Decrease Price for Peak Trading Intervals, where this price must be not less than that in (1);
    - a Consumption Increase Price for Off-Peak Trading Intervals: and
    - 4. a Consumption Decrease Price for Off-Peak Trading
      Intervals, where this price must be not less than that in (3),

where these prices must be not less than the Minimum STEM Price, not more than the Alternative Maximum STEM Price, and must be expressed in units of \$/MWh to a precision of \$0.01/MWh; and

- (d) for each Demand Side Programme registered to the Market Participant:
  - i. the name of the Facility;
  - ii. the following prices to apply for the Trading Day:
    - 1. A Consumption Decrease Price for Peak Trading Intervals;
    - A Consumption Decrease Price for Off-Peak Trading Intervals,

where these prices must be not less than the Minimum STEM Price, not more than the Alternative Maximum STEM Price, and must be expressed in units of \$/MWh to a precision of \$0.01/MWh.

## 6.11A.2. For Balancing Data Submission data to be valid:

- (a) it must conform to the format specified in clause 6.11A.1; and
- (b) it must only include Facilities registered by the submitting Market Participant.

# The **Non-Balancing** Dispatch Merit Order

# 6.12. The Non-Balancing Dispatch Merit Order

6.12.1.

- (a) By 1:30 PM on the Scheduling Day (or within 40 minutes of a closing time extended in accordance with clause 6.5.1(b) or clause 6.5A.1(b) the IMO must determine the Non-Balancing Dispatch Merit Orders identified in paragraphs (b) to (g). A Non-Balancing Dispatch Merit Order lists the order in which the Scheduled Generators, Dispatchable Loads and Demand Side Programmes of Market Participants other than the Electricity Generation Corporation Verve Energy will, in the absence of transmission limitations or limitations necessary to maintain Power System Security, be issued Dispatch Instructions by System Management under clause 7.6.1B(d) to increase or decrease output, as applicable.
- (b) A Non-Balancing Dispatch Merit Order for an increase in generation or a decrease in consumption relative to the quantities included in the applicable Resource Plan (or the current operating level of a Facility not included in a Resource Plan) during Peak Trading Intervals. The IMO must take into account the following principles when determining this Non-Balancing Dispatch Merit Order:
  - i. this Non-Balancing Dispatch Merit Order must list all Scheduled
    Generators, Demand Side Programmes and Dispatchable Loads
    registered by Market Participants other than the Electricity
    Generation Corporation Verve Energy; and
  - ii. this Non-Balancing Dispatch Merit Order must be determined applying the Market Participant Balancing Data applicable to the Trading Day by ranking the Registered Facilities referred to in (i) in increasing order of the:
    - 1. Non-Liquid Supply Increase Price for Peak Trading Intervals;
    - 2. Liquid Supply Increase Price for Peak Trading Intervals; or
    - 3. Consumption Decrease Price for Peak Trading Intervals.; as applicable;
  - iii. dual fuelled Facilities must appear in the position determined by the prices referred to in paragraph (ii) when the Facility is not running on Liquid Fuel and again in the position determined by those prices when the Facility is running on Liquid Fuel; and
  - iv. Liquid Fuelled Facilities, including dual fuelled Facilities running on Liquid Fuel, must be indicated with a flag.

- (c) A Non-Balancing Dispatch Merit Order for an decrease in generation or increase in consumption relative to the quantities included in the applicable Resource Plan (or the current operating level of a Facility not included in a Resource Plan) during Peak Trading Intervals. The IMO must take into account the following principles when determining this Non-Balancing Dispatch Merit Order:
  - this <u>Non-Balancing</u> Dispatch Merit Order must list all-<u>Scheduled</u> <u>Generators, Non-Scheduled Generators and</u> Dispatchable Loads registered by Market Participants other than <u>the Electricity</u> <u>Generation Corporation Verve Energy;</u>
  - ii. this Non-Balancing Dispatch Merit Order must be determined applying the Market Participant Balancing Data applicable to the Trading Day by ranking the Registered Facilities referred to in paragraph (i) in decreasing order of the:
    - Non-Liquid Supply Decrease Price for Peak Trading Intervals:
    - 2. Liquid Supply Decrease Price for Peak Trading Intervals; or
    - 3. —Consumption Increase Price for Peak Trading Intervals, as applicable.
  - iii. dual fuelled Facilities must appear in the position determined by the prices referred to in paragraph (ii) when the Facility is not running on Liquid Fuel and again in the position determined by those prices when the Facility is running on Liquid Fuel; and
  - iv. Liquid Fuelled Facilities, including dual fuelled Facilities running on Liquid Fuel, must be indicated with a flag;
- (d) A Dispatch Merit Order for decommitment of Scheduled Generators relative to the unit commitment indicated by the applicable Resource Plan during Peak Trading Intervals. The IMO must take into account the following principles when determining this Dispatch Merit Order:
  - this Dispatch Merit Order must list all Scheduled Generators registered by Market Participants other than the Electricity Generation Corporation;
  - ii. this Dispatch Merit Order must be determined applying the Standing Data described in Appendix 1(c)(i)(2) by ranking the Registered Facilities referred to in paragraph (i) in increasing order of the dollar amount paid to the Market Participant for a decommitment of the Facility.
- (de) A Non-Balancing Dispatch Merit Order for an increase in generation or decrease in consumption relative to quantities included in the applicable Resource Plan (or the current operating level of a Facility not included in a

Resource Plan) during Off-pPeak Trading Intervals. The IMO must take into account the following principles when determining this Non-Balancing Dispatch Merit Order:

- this <u>Non-Balancing</u> Dispatch Merit Order must list all-<u>Scheduled</u>
   Generators Demand Side Programmes and Dispatchable Loads
   registered by Market Participants other than the <u>Electricity</u>
   Generation Corporation Verve Energy; and
- ii. this Non-Balancing Dispatch Merit Order must be determined applying the Market Participant Balancing Data applicable to the Trading Day by ranking the Registered Facilities referred to in paragraph (i) in increasing order of the:
  - Non-Liquid Supply Increase Price for Off-Peak Trading Intervals;
  - Liquid Supply Increase Price for Off-Peak Trading Intervals;
     or
  - 3. Consumption Decrease Price for Off-Peak Trading Intervals.

    as applicable;
- iii. dual fuelled facilities must appear in the position determined by the prices referred to in paragraph (ii) when the Facility is not running on Liquid Fuel and again in a position determined by those prices when the Facility is running on Liquid Fuel; and
- iv. Liquid Fuelled Facilities, including dual fuelled Facilities running on Liquid Fuel, must be indicated with a flag.
- (ef) A Non-Balancing Dispatch Merit Order for an-decrease in generation or increase in consumption relative to the quantities included in the applicable Resource Plan (or zero where the quantity was not included in a Resource Plan Submission) during Off-pPeak Trading Intervals. The IMO must take into account the following principles when determining this Non-Balancing Dispatch Merit Order:
  - this <u>Non-Balancing</u> Dispatch Merit Order must list all-<u>Scheduled</u> <u>Generators</u>, <u>Non-Scheduled Generators and</u> Dispatchable Loads registered by Market Participants other than <u>the Electricity</u> <u>Generation Corporation Verve Energy</u>; <u>and</u>
  - ii. this Non-Balancing Dispatch Merit Order must be determined applying the Market Participant Balancing Data applicable to the Trading Day by ranking the Registered Facilities referred to in paragraph (i) in decreasing order of the:
    - Non-Liquid Supply Decrease Price for Off-Peak Trading Intervals;

- 2. Liquid Supply Decrease Price for Off-Peak Trading Intervals; or
- 3. Consumption Increase Price for Off-Peak Trading Intervals; as applicable.
- iii. dual fuelled Facilities must appear in the position determined by the prices referred to in paragraph (ii) when the Facility is not running on Liquid Fuel and again in a position determined by those prices when the Facility is running on Liquid Fuel; and
- iv. Liquid Fuelled Facilities, including dual fuelled Facilities running on Liquid Fuel, must be indicated with a flag.
- (g) A Dispatch Merit Order for decommitment of Scheduled Generators relative to the unit commitment indicated by the applicable Resource Plan during Off-Peak Trading Intervals. The IMO must take into account the following principles when determining this Dispatch Merit Order:
  - this Dispatch Merit Order must list all Scheduled Generators registered by Market Participants other than the Electricity Generation Corporation;
  - ii. this Dispatch Merit Order must be determined applying the Standing Data described in Appendix 1(c)(i)(2) by ranking the Registered Facilities referred to in paragraph (i) in increasing order of the dollar amount paid to the Market Participant for a decommitment of the Facility during Off-Peak Trading Intervals.
- (fh) Where the prices-in Balancing Data or payments described in Standing Data, as applicable, for two or more Registered Facilities are equal, then, for the purpose of determining the ranking in any Non-Balancing Dispatch Merit Order, other than those for decommitment, the IMO must rank a Registered Facility with a greater load registered in Standing Data in items (h)(iii) or (i)(iii) of Appendix 1 before a Registered Facility with a lesser load. In the event of a tie, the IMO will randomly assign priority to break the tie.-sent out capacity registered in Standing Data before a Registered Facility with a lesser sent out capacity. For a Dispatch Merit Order for decommitment, the IMO must rank a Registered Facility with a greater name plate capacity registered in Standing Data before a Registered Facility with a lesser name plate capacity.

# **Balancing Pricing and Quantities**

## 6.13. Real Time Dispatch Information

6.13.1. System Management must provide the IMO with dispatch data for settlement purposes in accordance with clause 7.13.

## 6.14. Calculation of MCAP, UDAP and DDAP[Blank]

- 6.14.1. Subject to clause 6.14.1A, by 3 PM on the first Business Day following the end of a Trading Day, the IMO must calculate and publish for each Trading Interval on the Trading Day:
  - (a) the Marginal Cost Administered Price (MCAP);
  - (b) the Upward Deviation Administered Price (UDAP); and
  - (c) the Downward Deviation Administered Price (DDAP),

in accordance with this clause 6.14.

- 6.14.1A. If System Management advises the IMO that it has been prevented from completing the relevant processes that enable the provision of the data described in clause 7.13.1, the IMO may extend the timeline prescribed in clause 6.14.1, subject to any such extension not resulting in a delay of that timeline of more than two business days, and must advise Rule Participants of any such extension as soon as practicable.
  - 6.14.2. The value of MCAP for a Trading Interval is calculated as follows:
  - (a) If the STEM Auction was suspended for the Trading Interval under clause 6.10.1, and the process described in clause 6.9 cannot subsequently be completed by the time MCAP must be published under clause 6.14.1, the IMO must determine MCAP for the Trading Interval to be the value of MCAP for the equivalent Trading Interval:
    - i. if the IMO is determining MCAP for a Business Day, MCAP will be the value for the most recent Trading Day in the past which is a Business Day and commenced on the same day of the week;
    - ii. if the IMO is determining MCAP for a day which is not a Business

      Day, MCAP will be the value for the most recent Trading Day in the past which is not a Business Day.
  - (b) If the STEM Auction was not suspended for the Trading Interval under clause 6.10.1, or was suspended but the process described in clause 6.9 can subsequently be completed for the purposes of this clause by the time MCAP must be published under clause 6.14.1, then MCAP must be calculated in accordance with clause 6.14.3.
- 6.14.3. Where MCAP is to be calculated in accordance with this clause under clause 6.14.2(b):
- 6.14.4. For the purposes of clause 6.14.3:
  - (a) the "Operational System Load Estimate" for a Trading Interval is the estimate that the IMO receives from System Management of the total Loss Factor adjusted MWh consumption supplied via the SWIS during that

Trading Interval. This estimate equals the total loss adjusted generator sent out energy as estimated from generator operational meter data and the use of state estimator systems;

- (b) [Blank]
- (c) the "Scheduled System Load" for a Trading Interval is the sum of:
  - i. the sum over all Resource Plans for that Trading Interval of the total Loss Factor adjusted generation scheduled in each Resource Plan;
  - ii. the sum over all Resource Plans of the shortfall quantity for that Trading Interval as described in clause 6.11.1(e); and
  - iii. the Net Contract Position of the Electricity Generation Corporation for that Trading Interval.
- (d) the "Relevant Quantity" equals:
  - i. the Operational System Load Estimate for the Trading Interval; plus
  - ii. IMO's estimate of the total MWh demand curtailed during that Trading Interval (if any); minus
  - iii. the IMO's estimate of the amount by which energy provided by

    Market Generators other than the Electricity Generation Corporation
    deviates from the relevant Resource Plan quantities. This estimate
    equals:
    - the Operational System Load Estimate for the Trading Interval; minus
    - the total Loss Factor adjusted generator sent out energy of the Electricity Generation Corporation based on SCADA data for the Trading Interval; minus
    - the sum over all Resource Plan Submissions of the total Loss Factor adjusted sent out energy included in each Resource Plan for the Trading Interval; minus
    - the sum over all Resource Plan Submissions of the absolute value of each shortfall included in accordance with clause 6.11.1(e) for the Trading Interval
- 6.14.5. The value of UDAP for a Trading Interval equals:
  - (a) 0.5 x MCAP during Peak Trading Intervals; and
  - (b) zero during Off-Peak Trading Intervals.
- 6.14.6. The value of DDAP for a Trading Interval equals the lesser of:
  - (a) the Alternative Maximum STEM Price; and
  - (b) the greater of:

i. the Minimum STEM Price; and
 ii. the price that is:

 1.3 x MCAP for Peak Trading Intervals; and
 2. 1.1 x MCAP for Off-peak Trading Intervals.

6.14.7. Once published under clause 6.14.1, MCAP, UDAP and DDAP cannot be altered, either through disagreement under clause 9.20.6, or through dispute under clause 9.21.

### 6.15 The Dispatch Schedule

- 6.15.1. For a Market Participant other than the Electricity Generation Corporation, the Dispatch Schedule for a Trading Interval for a [Scheduled Generator (excluding those to which clauses 3.21.2, 3.21A.14 or 4.25.10 apply) or] Dispatchable Load is:
  - (a) where no Dispatch Instructions were issued in respect of the Registered Facility for the Trading Interval, equal to the energy to be generated and sent out or consumed by the Registered Facility indicated in the applicable Resource Plan (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity of energy so that the result is measured at the Reference Node) for that Trading Interval plus;
    - i. where the Metered Schedule for the Trading Interval is higher than or equal to the applicable Resource Plan value, the Facility's Facility Dispatch Tolerance as a positive value to the extent that the resulting Dispatch Schedule does not exceed the Metered Schedule or
    - ii. where the Metered Schedule for the Trading Interval is lower than the applicable Resource Plan value, the Facility's Facility Dispatch Tolerance as a negative value to the extent that the resulting Dispatch Schedule is not lower than the Metered Schedule;
  - (b) where one or more Dispatch Instructions that specified a target MW output level or an instruction under a Network Control Service Contract were issued to the Market Participant in respect of the Registered Facility for the Trading Interval, equal to:

#### i. where:

1. the Metered Schedule plus the Facility's Facility Dispatch
Tolerance is greater than or equal to the amount calculated
in accordance with Appendix 7 plus the quantities under a
Network Control Service Contract instructions plus
Balancing Support Contract energy dispatched (where for
the purpose of this calculation a Loss Factor adjustment is to
be applied to the amount calculated in accordance with

- Appendix 7, to the Facility Dispatch Tolerance, to the quantities under a Network Control Service Contract and to the quantities under a Balancing Support Contract so that in each case the result is measured at the Reference Node); and
- 2. the Metered Schedule less the Facility's Facility Dispatch
  Tolerance is less than or equal to the amount calculated in
  accordance with Appendix 7 plus the quantities under a
  Network Control Service Contract instructions plus
  Balancing Support Contract energy dispatched (where for
  the purpose of this calculation a Loss Factor adjustment is to
  be applied to the amount calculated in accordance with
  Appendix 7, to the Facility Dispatch Tolerance, to the
  quantities under a Network Control Service Contract and to
  the quantities under a Balancing Support Contract so that in
  each case the result is measured at the Reference Node);

### then the Metered Schedule; or

- ii. otherwise, the amount calculated in accordance with Appendix 7 plus the quantities under a Network Control Service Contract instructions plus Balancing Support Contract (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the amount calculated in accordance with Appendix 7, to the quantities under a Network Control Service Contract and to the quantities under a Balancing Support Contract so that the result is measured at the Reference Node).]
- 6.15.2. The Dispatch Schedule for a Trading Interval equals the corresponding Metered Schedule for any of the following Facilities:
  - (a) a Non-Scheduled Generator;
  - (aA) a Scheduled Generator to which clauses 3.21A.14 or 4.25.10 apply;
  - (b) a Non-Dispatchable Load;
  - (c) [Blank]
  - (d) an Interruptible Load;
  - (e) a Scheduled Generator or Dispatchable Load registered by the Electricity Generation Corporation; and
  - (f) a Scheduled Generator or Dispatchable Load registered by a Market
    Participant (other than the Electricity Generation Corporation) where a
    Dispatch Instruction of the type described in clause 7.7.3(d)(ii) was issued to the Market Participant in respect of the Facility.

### 6.15. Maximum and Minimum Theoretical Energy Schedule

- 6.15.1. The Maximum Theoretical Energy Schedule in a Trading Interval is:
  - (a) for a Balancing Facility which is a Scheduled Generator, the amount which is the lesser of:
    - i. the maximum amount of sent out energy (in MWh) which could have been dispatched in the Trading Interval from Balancing Price-Quantity Pairs in respect of the Balancing Facility with a Loss Factor Adjusted Price less than or equal to the Balancing Price, taking into account the Balancing Facility's SOI Quantity and Ramp Rate Limit; and
    - ii. where the Balancing Facility is subject to an Outage, the maximum amount of sent out energy (in MWh) which could have been dispatched given the Available Capacity for that Trading Interval;
  - (b) for a Balancing Facility which is a Non-Scheduled Generator:
    - i. if the Loss Factor Adjusted Price of the Balancing Price Quantity-Pair
       in respect of the Balancing Facility is greater than or equal to the
       Balancing Price, then the Sent Out Metered Schedule; and
    - ii. otherwise the minimum amount of sent out energy (in MWh) which the

      Balancing Facility could have generated in the Trading Interval if the

      Facility had been dispatched downwards at its Ramp Rate Limit from

      its SOI Quantity; or
  - (c) for the Verve Energy Balancing Portfolio, the maximum amount of sent out energy (in MWh) which could have been dispatched in the Trading Interval from Balancing Price-Quantity Pairs within the Balancing Portfolio Supply Curve with an associated price less than or equal to the Balancing Price, taking into account the Portfolio Ramp Rate Limit and the SOI Quantity.
- 6.15.2 The Minimum Theoretical Energy Schedule in a Trading Interval equals:
  - (a) for a Balancing Facility which is a Scheduled Generator, the amount which is the lesser of:
    - i. the maximum amount of sent out energy (in MWh) which could have been dispatched in the Trading Interval from Balancing Price-Quantity Pairs in respect of the Balancing Facility with a Loss Factor Adjusted Price less than the Balancing Price, taking into account the Balancing Facility's SOI Quantity and Ramp Rate Limit; and
    - ii. where the Balancing Facility is subject to an Outage, the maximum amount of sent out energy (in MWh) which could have been dispatched given the Available Capacity for that Trading Interval;

- (b) for a Balancing Facility which is a Non-Scheduled Generator:
  - i. if a Dispatch Instruction was issued to the Balancing Facility to decrease its output and the Loss Factor Adjusted Price of the Balancing Price-Quantity Pair in respect of the Balancing Facility is greater than the Balancing Price, then System Management's estimate of the maximum amount of sent out energy (in MWh) which the Balancing Facility would have supplied in the Trading Interval had the Dispatch Instruction not been issued; and
  - ii. otherwise the Sent Out Metered Schedule for the Facility; or
- (c) for the Verve Energy Balancing Portfolio, the maximum amount of sent out energy (in MWh) which could have been dispatched in the Trading Interval from Balancing Price-Quantity Pairs within the Balancing Portfolio Supply Curve with an associated price less than the Balancing Price, taking into account the Portfolio Ramp Rate Limit and SOI Quantity

### 6.16. The Metered Schedule

- 6.16.1. Subject to clause 9.3.3, the IMO must determine the Metered Schedule for a Trading Interval for a Registered Facility or Non-Dispatchable Load in accordance with clause 9.3.4.
- 6.16.1A. For the purposes of clauses 6.16A and 6.16B, Sent Out Metered Schedules for a Balancing Facility are to be calculated by the IMO.
- 6.16.2. The IMO must determine the Demand Side Programme Load for a Demand Side Programme for a Trading Interval as the total net MWh quantity of energy consumed by the Associated Loads of that Demand Side Programme during the Trading Interval, determined from Meter Data Submissions and expressed as a positive non-ILoss Factor adjusted value.

### 6.16A. Facility Out of Merit

- 6.16A.1. The Upwards Out of Merit Generation in a Trading Interval for a Balancing Facility that is a Scheduled Generator equals:
  - (a) subject to clause 6.16A.1(b), the Sent Out Metered Schedule less the Maximum Theoretical Energy Schedule; or
  - (b) zero where:
    - i. System Management has provided a report to the IMO under clause 7.10.7 and the IMO determines that the relevant Market Participant has not adequately or appropriately complied with a Dispatch Instruction or clause 7.7.1A;

- ii. the Facility was undergoing a Test or complying with an Operating Instruction; or
- iii. the Sent Out Metered Schedule less the Maximum Theoretical Energy Schedule is less than the sum of:
  - if instructed by System Management to provide LFAS, the Upwards LFAS Enablement, divided by two so that it is expressed in MWh; and
  - 2. the applicable Settlement Tolerance.
- 6.16A.2. For a Balancing Facility that is a Non-Scheduled Generator, in a Trading Interval, the Upwards Out of Merit Generation equals the Sent Out Metered Schedule less the Maximum Theoretical Energy Schedule.
- 6.16A.3. The Downwards Out of Merit Generation in a Trading Interval for a Balancing Facility equals:
  - (a) subject to clause 6.16A.3(b), the Minimum Theoretical Energy Schedule less the Sent Out Metered Schedule; or
  - (b) zero if:
    - System Management has provided a report to the IMO under clause 7.10.7 and the IMO determines that the relevant Market Participant has not adequately or appropriately complied with a Dispatch Instruction or clause 7.7.1A;
    - ii. the Facility was undergoing a Test or complying with an Operating Instruction; or
    - iii. the Minimum Theoretical Energy Schedule less the Sent Out

      Metered Schedule is less than the sum of:
      - if instructed by System Management to provide LFAS, the Downwards LFAS Enablement, divided by two so that it is expressed in MWh; and
      - 2. the applicable Settlement Tolerance.

## 6.16B. Verve Energy Balancing Portfolio Out of Merit

6.16B.1. The Portfolio Upwards Out of Merit Generation in a Trading Interval for the Verve Energy Balancing Portfolio equals:

(a) subject to clause 6.16B.1(b), the sum of any Sent Out Metered Schedules for Facilities in the Verve Energy Balancing Portfolio less the Maximum Theoretical Energy Schedule for the Verve Energy Balancing Portfolio; or

### (b) zero if:

- i. System Management has provided a report to the IMO under clause 7.10.7 and the IMO determines that Verve Energy has not adequately or appropriately complied with a Dispatch Order in respect of the Verve Energy Balancing Portfolio; or
- ii. the sum of any Sent Out Metered Schedules for Facilities in the

  Verve Energy Balancing Portfolio less the Maximum Theoretical

  Energy Schedule for the Verve Energy Balancing Portfolio is less
  than the sum of:
  - any sent out energy dispatched on by System Management from a Network Control Service Contract associated with a Facility within the Verve Energy Balancing Portfolio;
  - if Facilities within the Verve Energy Balancing Portfolio were instructed by System Management to provide LFAS, the sum of Upwards LFAS Enablement and Upwards LFAS Backup Enablement, both divided by two so that they are expressed in MWh;
  - if a Spinning Reserve Event has occurred, any Spinning
     Reserve Response Quantity, excluding any quantity under clause 6.16B.1(b)(ii)(2); and
  - 4. the Portfolio Settlement Tolerance.
- 6.16B.2. The Portfolio Downwards Out of Merit Generation in a Trading Interval for the Verve Energy Balancing Portfolio equals:
  - (a) subject to clause 6.16B.2(b), the Minimum Theoretical Energy Schedule

    less the sum of any Sent Out Metered Schedules for Facilities in the Verve

    Energy Balancing Portfolio; or

### (b) zero if:

- i. System Management has provided a report to the IMO under clause 7.10.7 and the IMO determines that Verve Energy has not adequately or appropriately complied with a Dispatch Order; or
- ii. the Minimum Theoretical Energy Schedule of the Verve Energy
  Balancing Portfolio less the sum of any Sent Out Metered

<u>Schedules for Facilities in the Verve Energy Balancing Portfolio is</u> less than the sum of:

- any sent out energy dispatched by System Management from a Network Control Service Contract associated with a Facility within the Verve Energy Balancing Portfolio;
- 2. if Facilities within the Verve Energy Balancing Portfolio were instructed by System Management to provide LFAS, the sum of the Downwards LFAS Enablement plus the Downwards LFAS Backup Enablement, both divided by two so that they are expressed in MWh;
- if a Load Rejection Reserve Event has occurred, any Load Rejection Reserve Quantity excluding any quantity under clause 6.16B.2(b)(ii)(2); and
- 4. the Portfolio Settlement Tolerance.

## 6.17. Balancing Settlement Quantities

- 6.17.1. The IMO must determine for each Market Participant and each Trading Interval of each Trading Day:
  - (a) the Metered Balancing Quantity;
  - (b) the Non-Balancing Facility Dispatch Instruction Payment;
  - (c) Loss Factor adjusted Facility Constrained On Quantities and associated prices;
  - (d) Loss Factor adjusted Facility Constrained Off Quantities and associated prices;
  - (e) Loss Factor adjusted Constrained On Verve Energy Balancing Portfolio

    Quantities and associated prices; and
  - (f) Loss Factor adjusted Verve Energy Balancing Portfolio Constrained Off Quantities and associated prices,

in accordance with this clause 6.17.

- (a) the Authorised Deviation Quantity;
- (b) the Upward Unauthorised Deviation Quantity:
- (c) the Downward Unauthorised Deviation Quantity; and
- (d) [Blank]
- (e) the Dispatch Instruction Payment,

in accordance with this clause 6.17.

- 6.17.2. The Authorised Deviation Quantity Metered Balancing Quantity, ADQMBQ(p,d,t), for Market Participant p and Trading Interval t of Trading Day d equals:
  - the net sum of all Metered Schedules the Dispatch Schedules for Trading Interval t for the Registered Facilities registered by Market Participant p and Non-Dispatchable Loads associated with Market Participant p as indicated in Standing Data;
  - (b) less, the Net Contract Position of Market Participant p in Trading Interval t:
  - (c) [Blank]less, the sum over all of Market Participant p's Facilities of the Balancing Support Contract energy dispatched from them in Trading Interval t as specified by System Management in accordance with clause 7.13(dA) (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity specified by System Management so that the result is measured at the Reference Node);
  - (cA) less, the sum over all of Market Participant p's Facilities of the Network
    Control Service Contract energy dispatched from them in Trading Interval t
    as specified by System Management in accordance with clause 7.13.1(dB)
    (where for the purpose of this calculation a Loss Factor adjustment is to be
    applied to the quantity specified by System Management so that the result
    is measured at the Reference Node);
  - (d) plus, if the Market Participant is the Electricity Generation Corporation, the sum over all Market Participants (excluding the Electricity Generation Corporation) of the Balancing Support Contract energy dispatched from their Facilities in Trading Interval t as specified by System Management in accordance with clause 7.13(dA) (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity specified by System Management so that the result is measured at the Reference Node);

## **Constrained On Facility Balancing Quantities**

- 6.17.2A. Clauses 6.17.3, 6.17.4 and 6.7.4B do not apply to Facilities in the Verve Energy Balancing Portfolio.
- 6.17.3. Subject to clause 6.17.2A, the IMO must attribute any Upwards Out of Merit

  Generation from a Balancing Facility that is a Scheduled Generator in a Trading
  Interval, at the quantities and prices in the Balancing Price-Quantity Pairs for that
  Balancing Facility as follows:
  - (a) Constrained On Quantity1 (ConQ1) equals the lesser of:
    - i. the maximum energy (in MWh) which could have been dispatched from the Balancing Facility at a Loss Factor Adjusted Price, being price N in the Facility's Balancing Price-Quantity Pair (Price N), with a price higher than but closest to the Balancing Price, taking into

- account the actual SOI Quantity of the Balancing Facility and the applicable Ramp Rate Limit; and
- ii. the Upwards Out of Merit Generation for the Balancing Facility;
- (b) Constrained on Compensation Price1 (ConP1) equals the Loss Factor
  Adjusted Price N identified in clause 6.17.3(a) less the Balancing Price;
- (c) If the Balancing Facility's Upwards Out of Merit Generation exceeds

  ConQ1, then additional Constrained On Quantity2 (ConQ2) equals the lesser of:
  - i. the maximum energy (MWh) which could have been dispatched from Balancing Facility's Price N+1 with a price higher than but closest to the Price N, taking into account when the Balancing Facility's MW level reached the top of the quantity associated in the Balancing Price Price-Quantity Pair for Price N in this determination and the applicable Ramp Rate Limit; and
  - ii. the Upwards Out of Merit Generation for the Balancing Facility less ConQ1;
- (d) The IMO must repeat the processes set out in paragraphs (a) to (c) above to identify, from the next highest priced Price N+1, any ConQN+1 and ConPN+1;
- (e) The Non-Qualifying Constrained On Generation for the Balancing Facility
  equals the sum of any sent out energy (in MWh) from a Network Control
  Service Contract dispatched on by System Management and any Upwards
  LFAS Enablement, divided by two so that it is expressed as sent out MWh,
  which the Balancing Facility was instructed to provide by System
  Management;
- (f) If the Non-Qualifying Constrained On Generation exceeds ConQ1:
  - i. set ConQ1 to zero; or
  - ii. otherwise reduce ConQ1 by the amount of Non-Qualifying Constrained On Generation;
- (g) The IMO must repeat the process set out in paragraph (f) above for each ConQN in ascending order until all Non-Qualifying Constrained On Generation has been deducted from ConQN; and
- (h) For settlement purposes under Chapter 9, the IMO must Loss Factor adjust each ConQN calculated in paragraphs (a) to (f) above.

### **Constrained Off Facility Balancing Quantities**

- 6.17.4. Subject to clause 6.17.2A, the IMO must attribute any Downwards Out of Merit

  Generation from a Balancing Facility that is a Scheduled Generator, in a Trading

  Interval, excluding Facilities within the Verve Energy Balancing Portfolio, to the

  Balancing Price-Quantity Pairs for that Balancing Facility as follows:
  - (a) Constrained Off Quantity1 (CoffQ1) equals the lesser of:
    - i. the maximum energy (in MWh) which could have been dispatched down from the Balancing Facility at a Loss Factor Adjusted Price, being price N in the Facility's Balancing Price-Quantity Pair (Price N), with a price lower than but closest to the Balancing Price, taking into account the actual SOI Quantity of the Balancing Facility and the applicable Ramp Rate Limit;
    - ii. the Downwards Out of Merit Generation for the Balancing Facility;
  - (b) Constrained Off Compensation Price1 (CoffP1) equals the Balancing Price less the Loss Factor Adjusted Price, Price N, identified in clause 6.17.4(a);
  - (c) If the Balancing Facility Downwards Out of Merit Generation exceeds

    CoffQ1, then Constrained Off Quantity2 (CoffQ2) equals the lesser of:
    - i. the maximum energy (in MWh) which could have been dispatched down from Balancing Facility Price N+1 with a price lower than but closest to the Price N, taking into account when the Balancing Facility's MW level reached the bottom of the quantity associated in the Balancing Price Price-Quantity Pair for Price N in the calculation in clause 6.17.4(a)(i) and the Ramp Rate Limit; and
    - ii. the Downwards Out of Merit Generation for the Balancing Facility less CoffQ1;
  - (d) The IMO must repeat the processes set out in paragraphs (a) to (c) above to identify, from the next lowest priced Price N+1, any CoffQN+1 and CoffPN+1;
  - (e) The Non-Qualifying Constrained Off Generation for the Balancing Facility
    equals the sum of any sent out energy (in MWh) on from a Network Control
    Service Contract dispatched off by System Management and any
    Downwards LFAS Enablement, divided by two so that it is expressed as
    sent out MWh, which the Balancing Facility was instructed to provide by
    System Management;
  - (f) If the Non-Qualifying Constrained Off Generation exceeds CoffQ1:

- i. set CoffQ1 to zero; or
- ii. otherwise reduce CoffQ1 by the amount of Non-Qualifying Constrained Off Generation;
- (g) The IMO must repeat the process set out in paragraph (f) above for each

  CoffQN in ascending order until all Non-Qualifying Constrained Off

  Generation has been deducted from CoffQN; and
- (h) For settlement purposes under Chapter 9, the IMO must Loss Factor adjust each CoffQN calculated in paragraphs (a) to (f) above.
- 6.17.4B. Subject to clause 6.17.2A, for any Balancing Facility that is a Non-Scheduled

  Generator, in a Trading Interval, CoffQ1 equals Loss Factor adjusted Downwards

  Out of Merit Generation (in MWh) and CoffP1 equals the price in the Balancing

  Price-Quantity Pair associated with the Balancing Facility.

#### **Constrained On Verve Energy Balancing Portfolio Quantities**

- 6.17.5. The IMO must attribute any Upwards Out of Merit Generation from the Verve

  Energy Balancing Portfolio in a Trading Interval to the Balancing Portfolio Supply
  Curve as follows:
  - (a) Portfolio Constrained On Quantity1 (PConQ1) equals the lesser of:
    - i. the maximum energy (in MWh) which could have been dispatched from the quantity tranche N in the Balancing Portfolio Supply Curve with a price higher than but closest to the Balancing Price, taking into account the actual Verve Energy Balancing Portfolio SOI Quantity and the Portfolio Ramp Rate Limit; and
    - ii. the Upwards Out of Merit Generation for the Verve Energy Balancing Portfolio;
  - (b) Constrained on Compensation Price1 (PConP1) equals the price of tranche N identified in clause 6.17.5(a) less the Balancing Price;
  - (c) If the Portfolio Upwards Out of Merit Generation exceeds PConQ1, then Portfolio Constrained On Quantity2 (PConQ2) equals the lesser of:
    - i. the maximum energy (in MWh) which could have been dispatched from Balancing Portfolio Supply Curve tranche N+1 with a price higher than but closest to the price of tranche N, taking into account when the Verve Energy Balancing Portfolio MW level reached the top of tranche N in the calculation in clause 6.17.5(a)(i) and the Portfolio Ramp Rate Limit; and

- ii. the Portfolio Upwards Out of Merit Generation less PConQ1;
- (d) The IMO must repeat the process set out in paragraph (c) above to identify, from the next highest priced tranche N+1, any PConQN+1 and PConPN+1;
- (e) The Non-Qualifying Constrained On Generation for the Verve Energy
  Balancing Portfolio equals the sum, expressed in sent out MWh, of the
  following Ancillary Services (if any) which System Management instructed
  Verve Energy to provide from Facilities within the Verve Energy Balancing
  Portfolio:
  - i. Upwards LFAS Enablement;
  - ii. Upwards LFAS Backup Enablement; and
  - iii. the Spinning Reserve Response Quantity less the LFAS Response Quantity;
- (f) <u>If the Non-Qualifying Constrained On Generation exceeds PConQ1:</u>
  - i. set PConQ1 to zero; or
  - ii. otherwise reduce PConQ1 by the amount of Non-Qualifying Constrained On Generation;
- (g) The IMO must repeat the process set out in paragraph (f) above for each PConQN in ascending order until all Non-Qualifying Constrained On Generation has been deducted from PConQN; and
- (h) For settlement purposes under Chapter 9, each PConQN calculated in this clause 6.17.5 is to be Loss Factor adjusted by the Portfolio Loss Factor.

#### **Constrained Off Verve Energy Balancing Portfolio Quantities**

- 6.17.6A. The IMO must attribute any Downwards Out of Merit Generation from the Verve Energy Balancing Portfolio in a Trading Interval to the Balancing Portfolio Supply Curve as follows:
  - (a) Constrained Off Verve Energy Balancing Portfolio Quantity1 (PCoffQ1) equals the lesser of:
    - i. the maximum energy (in MWh) which could have been dispatched down from the Balancing Portfolio Supply Curve tranche N with a price lower than but closest to the Balancing Price, taking into account the actual Verve Energy Balancing Portfolio MW level at

- the start of the Trading Interval and the Portfolio Ramp Rate Limit; and
- ii. the Portfolio Downwards Out of Merit Generation;
- (b) Portfolio Constrained Off Compensation Price1 (PCoffP1) equals the Balancing Price less the price of tranche N identified in clause 6.17.6A(a);
- (c) If the Portfolio Downwards Out of Merit Generation (in MWh) exceeds

  PCoffQ2, then Constrained Off Verve Energy Balancing Portfolio Quantity2

  (PCoffQ2) equals the lesser of:
  - i. the maximum energy (in MWh) which could have been dispatched down from Portfolio Supply Curve tranche N+1 with a price lower than but closest to tranche N, taking into account when the Verve Energy MW level reached the bottom of tranche N in the calculation in clause 6.17.6A(a)(i) and the Portfolio Ramp Rate Limit; and
  - ii. the Portfolio Downwards Out of Merit Generation less PCoffQ1;
- (d) The IMO must repeat the process set out in paragraph (c) above to identify, from the next lowest priced tranche N+1, any PCoffQN and PCoffPN;
- (e) The Non-Qualifying Constrained off Generation for the Verve Energy
  Balancing Portfolio equals the sum, expressed in sent out MWh, of the
  following Ancillary Services (if any) which System Management instructed
  Verve Energy to provide from Facilities in the Verve Energy Balancing
  Portfolio:
  - <u>Downwards LFAS Enablement;</u>
  - ii. Downwards LFAS Backup Enablement; and
  - iii. the Load Rejection Response Quantity less the LFAS Response Quantity;
- (f) If the Non-Qualifying Constrained Off Generation exceeds PCoffG1:
  - i. set PCoffG1 to zero; or
  - ii. otherwise reduce PCoffG1 by the amount of Non-Qualifying Constrained On Generation;
- (g) The IMO must repeat the process set out in paragraph (f) above for each PCoffQN in ascending order until all Non-Qualifying Constrained On Generation has been deducted from PCoffQN; and

- (h) For settlement purposes under Chapter 9, each PCoffQN calculated in this clause 6.17.6A is to be Loss Factor adjusted by the Portfolio Loss Factor.
- 6.17.3. The Upward Unauthorised Deviation Quantity, UUDQ(p,d,t), for Market Participant p and Trading Interval t of Trading Day d equals the sum over all that Market Participant's Registered Facilities, other than those to which clauses 3.21A.14 or 4.25.10 apply, of the greater of:
  - (a) the quantity that is:
    - . the Facility's Metered Schedule for Trading Interval t; less
    - ii. the Facility's Dispatch Schedule for Trading Interval t; and
  - (b) zero.
- 6.17.4. The Downward Unauthorised Deviation Quantity, DUDQ(p,d,t), for Market
  Participant p and Trading Interval t of Trading Day d equals the sum over all that
  Market Participant's Registered Facilities, other than those to which clauses
  3.21A.14 or 4.25.10 apply, of the lesser of:
  - (a) the quantity that is:
    - i. the Facility's Metered Schedule for Trading Interval t; less
    - ii. the Facility's Dispatch Schedule for Trading Interval t; and
  - (b) zero.

#### 6.17.5. [Blank]

- 6.17.6. The Non-Balancing Facility Dispatch Instruction Payment, DIP(p,d,t), for Market Participant p and Trading Interval t of Trading Day d equals either:
  - (a) zero, if Market Participant p:
    - i. is the Electricity Generation Corporation Verve Energy; or
    - ii. was issued no Dispatch Instructions or was issued instructions described by either (c) or (d) for the Trading Interval t;

#### or the sum of:

- (b) <u>subject to clause 6.17.7</u>, the <u>sum-amount determined using the following formula, where RP is the quantity in the Facility's Resource Plan under clause 6.11.1(b)(iii), LF is the applicable Loss Factor and MS is the quantity in the Facility's Metered Schedule over all Scheduled Generators and Dispatchable Loads registered by the Market Participant of the following amounts for Trading Interval t:</u>
  - i. if the Dispatch Instruction was to decrease load:

Min(-RP x LF + MS, No. in clause 6.17.6B x LF) x
Consumption Decrease Price; or

if the Dispatch Schedule for the Registered Facility is set in accordance with clause 6.15.1(a) for Trading Interval t, the Balancing Support Contract energy dispatched from the Facility in Trading Interval t as specified by System Management in accordance with clause 7.13(dA) is zero (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity specified by System Management so that the result is measured at the Reference Node) and the Network Control Service Contract energy dispatched from the Facility in Trading Interval t as specified by System Management in accordance with clause 7.13(dB) is zero (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity specified by System Management so that the result is measured at the Reference Node), the amount for the Registered Facility is zero;

- iA. if clauses 3.21A.14 or 4.25.10 apply to the Registered Facility during the Trading Interval, the amount for the Registered Facility is zero:
- ii. if the Dispatch Instruction was to increase load:

-1(Max(-RP x LF + MS, No. in clause 6.17.6B x LF) x Consumption Increase Price); and

if neither paragraph (i) nor (iA) applies, the amount for the Registered Facility is the product of:

- the qualifying quantity for Trading Interval t as calculated in accordance with clause 6.17.8, less the sum of the quantity indicated in the applicable Resource Plan (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity so that the result is measured at the Reference Node) for the Registered Facility for Trading Interval t and the Balancing Support Contract energy dispatched from the Facility in Trading Interval t as specified by System Management in accordance with clause 7.13(dA) (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity specified by System Management so that the result is measured at the Reference Node) and the Network Control Service Contract energy dispatched from the Facility in Trading Interval t as specified by System Management in accordance with clause 7.13(dB) (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity specified by System Management so that the result is measured at the Reference Node); and
- 2. the price defined as:

i. the contracted price, if the Dispatch Instruction is for the purposes of an Ancillary Services Contract for System Restart, Dispatch Support or Load Rejection.

ii. zero, if the Dispatch Instruction is for the purposes of an Ancillary Services Contract other than for System Restart, Dispatch Support or Load Rejection, or

iii. the applicable price as defined by clause 6.17.7 less MCAP the Balancing Price for Trading Interval t.

- (c) the sum over all Non-Scheduled Generators registered by the Market Participant of the amount that is the product of:
  - i. the quantity, defined as a negative value, by which the Non-Scheduled Generator was instructed by System Management to reduce its output (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity specified by System Management so that the result is measured at the Reference Node); and
  - ii. the Standing Data price defined in Appendix 1(e)(v) that was current at the time of the Trading Interval for the Non-Scheduled Generator for a decrease in generation, (accounting for whether the Trading Interval is a Peak Trading Interval or an Off-Peak Trading Interval) less MCAP for the Trading Interval;
- (dc) the sum over all Demand Side Programmes registered to the Market Participant of the amount that is the product of:
  - i. the quantity (in MWh) by which the Demand Side Programme reduced its consumption in response to a Dispatch Instruction, excluding any instructions given under a Network Control Service Contract, where this quantity is equal to the lesser of:
    - 1. half of the Facility's Capacity Credits;
    - 2. the Dispatch Instruction amount provided by System Management in accordance with clause 7.13.1(eCD); or
    - 3. the greater of zero and the difference between half of the Relevant Demand set in clause 4.26.2CA and the Demand Side Programme Load measured in the Trading Interval; and
  - ii. the price defined in the Market Participant's Balancing Data
    Submission provided in accordance with clause 6.5A-Consumption
    Decrease Price that was current at the time of the Trading Interval for the Demand Side Programme (accounting for whether the Trading Interval is a Peak Trading Interval or an Off-Peak Trading Interval);

- (cd) if the participant is given an instruction under a Network Control Service

  Contract then the sum over all Network Control Service Contract facilities registered by the Market Participant of the amount that is the product of:
  - i. the quantity by which the facility was instructed by System

    Management to increase its output as specified by System

    Management in accordance with clause 7.13.1(dB) (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity specified by System Management so that the result is measured at the Reference Node) or reduce its consumption as specified by System Management in accordance with clause 7.13.1(dB); and
  - ii. the price as applicable under the relevant Network Control Service Contract for the facility as specified in clause 5.9.1(b).
- 6.17.6B. System Management must, for each Trading Interval in which a Dispatchable

  Load was subject to a Dispatch Instruction, provide the IMO with the non-Loss
  Factor adjusted quantity, in MWh, by which the Dispatchable Load was dispatched together with information regarding whether it was dispatched upwards or downwards from its Resource Plan. System Management must provide this information to the IMO as soon as reasonably practicable but in any event in time for the IMO to undertake settlement under Chapter 9.
- 6.17.7. The Consumption Decrease Price and Consumption Increase Price used in clauses 6.17.6(b)(i) and (ii) must be at the applicable Peak Trading Interval or Off-Peak Trading Interval price.

#### For the purpose of clause 6.17.6

(a) if the Dispatch Schedule for a Registered Facility for Trading Interval t is greater than the sum of the Resource Plan schedule for the Registered Facility (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity so that the result is measured at the Reference Node) for Trading Interval t and the Balancing Support Contract energy dispatched from the Facility in Trading Interval t as specified by System Management in accordance with clause 7.13(dA) (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity specified by System Management so that the result is measured at the Reference Node), then the applicable price is the Balancing Data price or the price defined in Appendix 1(e)(v) (depending on the context) that was current at the time of Trading Interval t for the Registered Facility, based on Fuel Declarations as modified by data provided by System Management in accordance with clause 7.13.1(eA), for an increase in generation or decrease in consumption, accounting for:

i. whether Trading Interval t is a Peak Trading Interval or an Off-Peak

Trading Interval; and

- ii. whether the Registered Facility was running on Liquid Fuel at any time during Trading Interval t.
- (b) if paragraph (a) does not apply, then the applicable price is the Balancing
  Price Balancing Data price that was current at the time of Trading Interval t
  for the Registered Facility, based on Fuel Declarations as modified by?
  data provided by System Management in accordance with clause
  7.13.1(eA), for a decrease in generation or increase in consumption,
  accounting for:
  - i. whether Trading Interval t is a Peak Trading Interval or an Off-Peak Trading Interval; and
  - ii. whether the Registered Facility was running on Liquid Fuel at any time during Trading Interval t.

#### 6.17.8. [Blank] For the purpose of clause 6.17.6:

- (a) if the applicable Balancing Data or Standing Data price for a Registered Facility for Trading Interval t is greater than or equal to MCAP the Balancing Price, then the qualifying quantity is the lesser of:
  - i. the Metered Schedule quantity for the Registered Facility for Trading Interval t; and
  - ii. the Dispatch Schedule quantity for the Registered Facility for Trading Interval t; and
- (b) if paragraph (a) does not apply, then the qualifying quantity is the greater of:
  - i. the Metered Schedule quantity for the Registered Facility for Trading Interval t; and
  - ii. the Dispatch Schedule quantity for the Registered Facility for Trading Interval t.
- 6.17.9. The IMO must <u>other than for Facilities in the Verve Energy Balancing Portfolio</u>, determine a <u>FacilityDispatch-Settlement</u> Tolerance for each Scheduled Generator and Dispatchable Load, where this <u>Facility Dispatch Settlement</u> Tolerance is equal to the lesser of:
  - (a) 3 MWh; and
  - (b) the greater of:
    - i. 0.5 MWh; and
    - ii. 3% of the Facility's:
      - 1. sent out capacity in the case of a Scheduled Generator; or
      - nominated maximum consumption quantity in the case of a Dispatchable Load,

as set out in Standing Data divided by 2 to be expressed as MWh.

- 6.17.10. The Portfolio Settlement Tolerance equals the lesser of:
  - (a) 3 MWh; and
  - (b) 3% of the Sent Out Capacity of the Verve Energy Balancing Portfolio divided by 2 to be expressed as MWh.

### 6.18. [Blank] Commitment Compensation

- 6.18.1. Subject to clause 6.18.3, Commitment Compensation will be payable by the IMO to a Market Participant (other than the Electricity Generation Corporation) in the event that:
  - (a) the Market Participant is instructed by System Management to start up a Scheduled Generator registered by the Market Participant more times than indicated in the applicable Resource Plan for that Scheduled Generator.
- 6.18.2. Subject to clause 6.18.3, the Commitment Compensation equals the sum of for each additional start up required of a Scheduled Generator during a Peak Trading Interval or Off-Peak Trading Interval the dollar amount for a commitment of the Facility specified in Standing Data, as defined in Appendix 1(c)(i).
- 6.18.3. No Commitment Compensation will be payable:
  - (a) to the Electricity Generation Corporation;
  - (b) for the first start in the Trading Day of a Scheduled Generator if the relevant Market Participant has Reserve Capacity Obligations in respect of that Facility; or
  - (c) for any start-up instructed by System Management in connection with any Ancillary Services Contract, Balancing Support Contract or Network Control Service Contract.

# **Market Advisories and Energy Price Limits**

#### 6.19. Market Advisories

- 6.19.1. A Market Advisory is a notification by the IMO to Market Participants, Network Operators and System Management of an event that the IMO reasonably considers will, or is likely to, significantly may impact on market operations.
- 6.19.2. The IMO must issue a Market Advisory for future potential events described in clause 6.19.1 if the IMO considers there to be a high probability that the event will occur within 48 hours of the time of issue.

### 6.20. Energy Price Limits

6.20.4. [Blank] The Minimum STEM Price to apply at any time is to be the Maximum STEM Price multiplied by negative one.

## **Settlement Data**

#### 6.21. Settlement Data

- 6.21.1. The IMO must provide the following information to the settlement system for each STEM Auction:
  - (a) a flag for each Trading Interval indicating if the STEM Auction was suspended for that Trading Interval;
  - (b) the STEM Clearing Price in each Trading Interval in units of \$/MWh; and
  - (c) for each Market Participant participating in the STEM Auction, the STEM quantity scheduled in each Trading Interval, in units of MWh, where this amount must be positive for a sale of energy to the IMO and negative for a purchase of energy from the IMO.
- 6.21.2. The IMO must provide the following information to the settlement system for each Trading Interval in a Trading Day:
  - (a) MCAP the Balancing Price, UDAP and DDAP; and
  - (b) for each Market Participant:
    - i. the Metered Balancing Quantity;
    - the Facility Loss Factor adjusted Constrained On Quantities and Loss Factor adjusted prices calculated in accordance with clause 6.17.3;
    - iiA. the Facility Loss Factor adjusted Constrained Off Quantities and Loss Factor adjusted prices calculated in accordance with clause 6.17.4;
    - iii. the Verve Energy Balancing Portfolio Loss Factor adjusted

      Constrained On Quantities and prices calculated in accordance with clause 6.17.5;
    - iv. <u>the Verve Energy Balancing Portfolio Loss Factor adjusted</u>

      <u>Constrained Off Quantities and prices calculated in accordance with clause 6.17.6A; and</u>
    - v. the Non-Balancing Facility Dispatch Instruction Payment; and
    - vi. any Commitment Compensation due to the Market Participant.
    - i. the Authorised Deviation Quantity;
    - ii. the Upward Unauthorised Deviation Quantity;

iii. the Downward Unauthorised Deviation Quantity;

iv. [Blank]

# 7. Dispatch

# Data used in the **Non-Balancing** Dispatch Process

#### 7.1. Data Used in the Non-Balancing and Out of Merit Dispatch Process

- 7.1.1. System Management must maintain and in accordance with clause 7.6, use the following data set, in giving and must use this data set when determining which Dispatch Instructions to Non-Balancing Facilities, Dispatch Instructions to Balancing Facilities dispatched Out of Merit and in providing Operating Instructions it will give:
  - (a) Standing Data on Registered Facilities determined in accordance with clause 2.34;
  - (b) Loss Factors determined in accordance with clause 2.27;
  - (c) expected Scheduled Generator and Non-Scheduled Generator capacities by Trading Interval determined in accordance with clauses 3.17.5, 3.17.6 and 3.17.8;
  - (d) transmission Network configuration and capacity by Trading Interval determined in accordance with clauses 3.17.5, 3.17.6 and 3.17.8;
  - (e) forecasts of load and Non-Scheduled Generation by Trading Interval determined in accordance with clause 7.2:
  - (f) Ancillary Service Requirements for each Trading Interval determined in accordance with clause 7.2.4;
  - (g) schedules of approved Planned Outages for generating works and transmission equipment by Trading Interval determined in accordance with clause 3.19;
  - (h) transmission Forced Outages and Consequential Outages by Trading Interval received from Network Operators in accordance with clause 3.21;
  - (i) Scheduled Generator, Non-Scheduled Generator, Dispatchable Load and Interruptible Load Forced Outages and Consequential Outages by Trading Interval received from Market Participants in accordance with clause 3.21;
  - (j) [Blank]Resource Plans by Trading Interval received from the IMO in accordance with clause 7.4;
  - (jA) the Fuel Declarations received from the IMO and notifications received from Market Participants in accordance with clause 7.5;
  - (k) the <u>Non-Balancing</u> Dispatch Merit Order received from the IMO in accordance with clause 7.5;

- (I) Supplementary Capacity Contract data, if any, received from the IMO in accordance with clause 4.24; and
- (m) Network Control Service Contract data, if any, received from a Network Operator in accordance with clauses 5.3A.3 and 5.3A.4.

## 7.3. Outages

- 7.3.1. [Blank]System Management must take account of Planned Outages in determining Dispatch Instructions.
- 7.3.2. [Blank]System Management must, from the time it is notified of a Forced Outage or Consequential Outage in accordance with clause 3.21.4, take account of the Forced Outage or Consequential Outage in determining Dispatch Instructions.
- 7.3.3. [Blank]
- 7.3.4. System Management must provide to the IMO the following information:
  - a schedule of Planned Outages, Forced Outages and Consequential Outages for each Registered Facility of which System Management is aware at that time where outages are calculated in accordance with clause 3.21.6.
  - (b) [Blank]

for each Trading Interval of a Trading Day, between 8:00\_AM and 8:30\_AM on the Scheduling Day prior to the Trading Day.

- 7.3.5. [Blank]
- 7.5. Non-Balancing Dispatch Merit Orders and Fuel Declarations
- 7.5.1. The IMO must provide System Management with the Non-Balancing Dispatch Merit Orders and Fuel Declarations for a Trading Day by 1:30 PM on the Scheduling Day.
- 7.5.2. Upon receipt of the <u>Non-Balancing</u> Dispatch Merit Orders and Fuel Declarations for a Trading Day, System Management must within 5 minutes confirm to the IMO that it has received the <u>Non-Balancing</u> Dispatch Merit Orders and Fuel Declarations.
- 7.5.3. In the event that the IMO does not receive confirmation of receipt of the Non-Balancing Dispatch Merit Orders and Fuel Declarations for a Trading Day from System Management within 5 minutes of submission, then the IMO must contact System Management. If System Management has not received the Non-Balancing Dispatch Merit Orders and Fuel Declarations, then the IMO must make alternative arrangements to communicate the information.

- 7.5.4. Subject to clause 7.5.5, a Market Participant other than the Electricity Generation Corporation Verve Energy may at any time between 1:30 PM on the Scheduling Day and 30 minutes prior to the commencement of the Trading Interval described in (b) notify System Management that the Market Participant will change the fuel upon which a Scheduled Generator registered to it will operate on from a Liquid Fuel to a Non- Liquid Fuel, or vice versa, where the notification must include:
  - (a) the identity of the Scheduled Generator;
  - (b) the first Trading Interval in the Trading Day from which the fuel change will take effect;
  - (c) the last Trading Interval in the Trading Day for which the fuel change will apply; and
  - (d) the fuel (Liquid Fuel or Non-Liquid Fuel) to be used;
- 7.5.5. A Market Participant may only issue a notification in accordance with clause 7.5.4 for a Scheduled Generator if:
  - (a) the Scheduled Generator is switching from Non-Liquid Fuel to Liquid Fuel because it has lost its supply of Non-Liquid Fuel; or
  - (b) the Scheduled Generator is switching from Liquid Fuel to Non-Liquid Fuel because it has obtained a new supply of Non-Liquid Fuel.
- 7.5.6. System Management must retain a record of all notifications provided to it in accordance with clause 7.5.4.
- 7.5.7. [Blank]In employing the Dispatch Merit Orders, System Management must assume that a Facility is operating on the fuel indicated for that Facility in the applicable Fuel Declaration except for Trading Intervals where the most recent notification received in accordance with clause 7.5.4 implies an alternative fuel is being used.

# **Dispatch Process**

## 7.6. The Dispatch Criteria

- 7.6.1. Subject to clause 7.6.1B, Wwhen scheduling and issuing dDispatching
  Instructions or Dispatch Orders to the Registered Facilities of the Electricity
  Generation Corporation and issuing Dispatch Instructions to other Market
  Participants, System Management must seek to meet the following criteria, in
  descending order of priority:
  - (a) to enable operation of the SWIS within the Technical Envelope parameters appropriate for the applicable Operating State;

- (b) to minimise involuntary load shedding on the SWIS; and
- (c) to maintain Ancillary Services to meet the Ancillary Service standards appropriate for the applicable Operating State.
- 7.6.1A. Notwithstanding clauses 7.6.21C and 7.6.3, System Management must give priority to the dispatch of a Registered Facility under a Network Control Service Contract over the dispatch of a Registered Facility under any other arrangement, if the Network Control Service provided under that contract would assist System Management to meet the Dispatch Ceriteria in clause 7.6.1.
- 7.6.1AA. In seeking to meet the Dispatch Criteria, System Management may issue an Operating Instruction in priority to any other Dispatch Instruction provided the Operating Instruction is also in accordance with:
  - (a) a Network Control Service Contract;
  - (b) an Ancillary Service Contract;
  - (c) these Market Rules in connection with a Test; or
  - (d) a Supplementary Capacity Contract.
- 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) Dispatch Instructions to Balancing Facilities in the order and for the quantities they appear in the BMO, taking into account Ramp Rate Limits;
  - (b) a Dispatch Instruction to a Balancing Facility Out of Merit but only to the next Facility or Facilities, and associated quantity in the BMO that System Management reasonably considers best meets the Dispatch Criteria, taking into account the associated Ramp Rate Limit;
  - (c) a Dispatch Instruction to any Balancing Facility Out of Merit, taking into account the Ramp Rate Limit and non-ramp rate Standing Data limitations and any other relevant information available to System Management; and
  - (d) a Dispatch Instruction to a Non-Balancing Facility in accordance with the Non-Balancing Dispatch Merit Order, taking into account 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:

- (d) 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 or an Emergency Operating State; or
- (e) 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.
- 7.6.2. For the purposes of clauses 7.6.1 and 7.6.1B, the Verve Energy Balancing
  Portfolio is to be treated as a Balancing Facility but the dispatch of any Facility
  within the Verve Energy Balancing Portfolio is to be under a Dispatch Order in
  accordance with clause 7.6A, which is deemed to meet the requirements to issue
  a Dispatch Instruction in respect of the Verve Energy Balancing Portfolio. Subject
  to clauses 7.6.1, 7.6.2A, 7.6.3, 7.6.4, 7.6.6, System Management must schedule
  and dispatch the Registered Facilities of the Electricity Generation Corporation
  and Registered Facilities covered by any Balancing Support Contract or Ancillary
  Service Contract in such a way as to allow the implementation of the Resource
  Plans that it has received from the IMO for Market Participants other than the
  Electricity Generation Corporation.

#### 7.6.2AA. A reference to a BMO in this clause 7.6 means, for a Trading Interval:

- (a) the BMO provided by the IMO to System Management under clause 7A.3.5(b);
- (b) if no such BMO is provided, the most recent Forecast BMO for that <u>Trading Interval provided under clause 7A.3.16(b); and</u>
- (c) if no such Forecast BMO is provided, the BMO or the Forecast BMO that was used by System Management for issuing Dispatch Instructions for the same Trading Interval the previous day if both Trading Intervals occur on a Business Day, or the most recent non-Business Day if the Trading Interval occurs on a non-Business Day.
- 7.6.2A. Where the Dispatch Criteria requires System Management to alter the Dispatch Plan of the Electricity Generation Corporation Verve Energy, subject to the limitations imposed by this clause 7.6, System Management must employ reasonable endeavours to minimise the change in the Dispatch Plan and to have regard for the merit order of Electricity Generation Corporation Verve Energy Facilities in the Verve Energy Balancing Portfolio.
- 7.6.3. [Blank]Where meeting the criteria in clause 7.6.1 would otherwise require the use of Liquid Fuelled Registered Facilities of the Electricity Generation Corporation or

Liquid Fuelled Registered Facilities covered by any Balancing Support Contract, or Ancillary Service Contract, then System Management may issue Dispatch Instructions to Market Participants other than the Electricity Generation Corporation that, if followed, will allow it to meet the criteria in clause 7.6.1, provided that in issuing such Dispatch Instructions System Management does not issue Dispatch Instructions with respect to a Facility that:

- (a) would result in that Facility using Liquid Fuel, or
- (b) is registered as a Demand Side Programme or Dispatchable Load.
- 7.6.4. [Blank]Where System Management cannot meet the criteria in clause 7.6.1 by scheduling and dispatching the Registered Facilities of the Electricity Generation Corporation and Registered Facilities covered by any Balancing Support Contract, or Ancillary Service Contract in such a way as to allow the implementation of the Resource Plans that it has received from the IMO for Market Participants other than the Electricity Generation Corporation, System Management must issue Dispatch Instructions to Market Participants other than the Electricity Generation Corporation that will allow it to meet the criteria in clause 7.6.1.
- 7.6.5. [Blank]Where System Management has issued a Dispatch Instruction in accordance with clause 7.6.3 or clause 7.6.4, but subject to clause 7.6.5A circumstances have changed, and it would not be able to issue the Dispatch Instruction under the relevant clause in the changed circumstances, System Management must cancel the Dispatch Instruction and issue directions to the relevant Market Participant in respect of the relevant Registered Facility to return to its Resource Plan for the relevant Trading Interval.
- 7.6.5A. [Blank] System Management must not issue a Dispatch Instruction solely because a Market Participant has notified it of a change in fuel in accordance with clause 7.5.4, with the exception that if a Market Participant notifies System Management of a change in fuel after System Management has issued a Dispatch Instruction then System Management may change that Dispatch Instruction accordingly.
- 7.6.6. [Blank] System Management may issue Dispatch Instructions to Market Participants other than the Electricity Generation Corporation:
  - (a) in accordance with any Ancillary Service Contract;
  - (b) in accordance with any Balancing Support Contract;
  - (c) in accordance with the details of any Network Control Service Contract, as advised to System Management by a Network Operator in accordance with clause 5.3A.3 or updated by a Network Operator in accordance with clause 5.2A.4;
  - (d) in connection with any test of equipment allowed under these Market Rules: or

- (e) under clause 7.6.3 or clause 7.6.4.
- 7.6.7. [Blank] System Management and the Electricity Generation Corporation may each enter into Balancing Support Contracts with Market Participants other than the Electricity Generation Corporation to assist them in meeting their obligations under this Chapter 7.
- 7.6.8. [Blank]Where it intends to enter into a Balancing Support Contract, System Management must:
  - (a) seek to minimise the cost of meeting its obligations under clause 7.6.2; and
  - (b) give consideration to using a tender process, unless System Management considers that this would not meet the requirements of paragraph (a).
- 7.6.9. [Blank]Where System Management has entered into a Balancing Support
  Contract, System Management must report the capacity contracted and the terms
  for calling on the capacity to the IMO.
- 7.6.10. Where a Market Participant has Capacity Credits granted in respect of a Demand Side Programme:
  - (a) the IMO must provide System Management with the details of the Reserve Capacity Obligations to enable System Management to dispatch the Demand Side Programme; and
  - (b) any Dispatch Instructions issued by System Management to the Demand Side Programme under clause 7.6.6(e) must be in accordance with those Reserve Capacity Obligations.
- 7.6.11. Where the IMO has entered into Supplementary Capacity Contracts:
  - (a) the IMO must provide System Management with the details of the Supplementary Capacity Contract to enable System Management to dispatch the services provided under it. Despite this, the IMO must not provide System Management with the payments terms of the contracts, which must be kept confidential; and
  - (b) System Management may, by issuing an Operating Instruction, call upon the relevant resource to provide services under any Supplementary Capacity Contract in accordance with the terms of the contract.
- 7.6.12. System Management may give a direction to a Market Participant (other than the Electricity Generation Corporation Verve Energy) in respect of a Scheduled Generator or Non-Scheduled Generator registered by the Market Participant with regard to the reactive power output of that Facility in accordance with any power factor required under the Technical Rules applying to the relevant Network.
- 7.6.13. System Management must document in the Power System Operation Procedure the procedure to be followed, and must follow that documented Market Procedure,

when scheduling and <u>issuing Operating Instructions to</u> dispatch<del>ing</del> Registered Facilities covered by any <del>Balancing Support Contract or</del> Ancillary Service Contract in a form sufficient for audits and investigations under these Market Rules.

# 7.6A. Scheduling and Dispatch of the <u>Verve Energy Balancing</u> <u>Portfolio Electricity Generation Corporation</u>

- 7.6A.1. Subject to System Management's obligations under clause 7.6, ‡this clause 7.6A describes the rules governing the relationship between System Management and the Electricity Generation Corporation Verve Energy for the purpose of scheduling and dispatching the Stand Alone Facilities for Ancillary Services other than LFAS and for scheduling and dispatching Registered Facilities of the Electricity Generation Corporation in the Verve Energy Balancing Portfolio generally.
- 7.6A.2. With respect to the scheduling of the Electricity Generation Stand Alone Facilities for Ancillary Services other than LFAS Corporation and the scheduling of Facilities in the Verve Energy Balancing Portfolio generally:
  - (a) Aat least once every month, the Electricity Generation Corporation Verve
    Energy must provide to System Management the following information in regard to the subsequent month:
    - A plant schedule describing the merit order in which the Facilities in the Verve Energy Balancing Portfolio are to be called upon and any restrictions on the operations of such Facilities;
    - ii. A plan for which fuels will be used in each Facility in its Verve
       Energy Balancing Portfolio and guidance as to how that plan might be varied depending on circumstance; and
    - iii. A description as to how Ancillary Services are to be provided <u>from</u>
      <u>Facilities in its Verve Energy Balancing Portfolio; and</u>
    - iv. <u>a description as to how Ancillary Services other than LFAS are to</u> be provided from the Stand Alone Facilities,
    - where the format and time resolution of this data is to be described in a procedure-;
  - (b) System Management must provide to the Electricity Generation

    Corporation-Verve Energy by 8:30 AM on the Scheduling Day associated with a Trading Day a forecast of total system demand for the Trading Day where the format and time resolution of this data is to be described in a procedure.
  - (c) System Management must provide to the Electricity Generation

    Corporation Verve Energy and the IMO by 12:30 PM4:00 PM on the Scheduling Day associated with a Trading Day:
    - i. a forecast of the requirements for the Electricity Generation
       Corporation energy in the Verve Energy Balancing Portfolio, being

- a forecast of the whole of system energy requirement less the aggregate Net Contract Positionsenergy of all Resource Plans of other Market Participants and less the aggregate forecast output of Non-Scheduled Generators including any Non-Scheduled Generators which are Stand Alone Facilities, for the Trading Day;
- ii. the Dispatch Plan for each Facility for the Trading Day; and
- iii. a forecast of the detailed Ancillary Services required from each Facility in the Verve Energy Balancing Portfolio and Ancillary Services other than LFAS from each Stand Alone Facility,;

where the format and time resolution of this data is to be described in a procedure-;

- (d) System Management must consult with the Electricity Generation

  Corporation Verve Energy in developing the information described in (c)
  and the Electricity Generation Corporation Verve Energy must provide

  System Management with any information required by System

  Management in accordance with a procedure to support the preparation of
  the information in (c). In the event of any failure by the Electricity

  Generation Corporation Verve Energy to provide information required by
  System Management in a timely fashion then System Management may
  use its reasonable judgement to substitute its own information:
- (e) [Blank] By 2:30 PM on the Scheduling Day associated with a Trading Day System Management must either confirm the Dispatch Plan specified in (c) with the Electricity Generation Corporation or notify the Electricity Generation Corporation of changes to the Dispatch Plan and forecast fuel requirement to reflect any changes required to accommodate Resource Plans or any changes in conditions.
- (f) If after 2:30 PM4:00 PM on the Scheduling Day but prior to the start of a Trading Interval on the corresponding Trading Day, System Management becomes aware of a change in conditions which will require a significant change in the Dispatch Plan it may make such change but must notify the Electricity Generation Corporation Verve Energy of such change; and
- (g) The Electricity Generation Corporation Verve Energy must notify System Management as soon as practicable if it becomes aware that it is unable to comply with a Dispatch Plan, providing reasons as to why it cannot comply.
- 7.6A.3. With respect to the dispatch of Stand Alone Facilities for the purposes of Ancillary Services other than LFAS, and the dispatch of Electricity Generation

  Corporation Verve Energy Facilities in the Verve Energy Balancing Portfolio generally, during a Trading Day:
  - (a) System Management may <u>issue an Operating Instruction for Stand Alone</u>

    <u>Facilities, and</u> instruct Facilities <u>in the Verve Energy Balancing Portfolio</u>, to deviate from the Dispatch Plan, or to change their commitment or output, in

- accordance with the Dispatch Criteria or in response to System Management's powers under a High Risk Operating State or an Emergency Operating State; and
- (b) System Management must provide adequate notice to the Electricity

  Generation Corporation Verve Energy, based on Standing Data, before a

  Facility in the Verve Energy Balancing Portfolio is required to respond to an instruction given under (a)—; and
- (c) The Electricity Generation Corporation—Verve Energy must notify System Management as soon as practicable if it Verve Energy becomes aware that it is unable to comply with an instruction given under (a).
- 7.6A.4. With respect to the dispatch compliance of the Electricity Generation

  Corporation Verve Energy for Facilities in the Verve Energy Balancing Portfolio:
  - (a) System Management may deem the Electricity Generation Corporation

    Verve Energy to be in non-compliance for a Trading Interval if the

    Electricity Generation Corporation Verve Energy fails to comply with the

    Dispatch Plan, its obligations to provide Ancillary Services, or an instruction

    given under clause 7.6A.3(a), to an extent that could endanger Power

    System Security;
  - (b) In determining whether or not to deem the Electricity Generation

    Corporation-Verve Energy to be in non-compliance, System Management must give due regard to any reasonable mitigating circumstances of which the Electricity Generation Corporation-Verve Energy has notified it in accordance with clause 7.6A.3(c);
  - (c) In determining whether or not to deem the Electricity Generation

    Corporation Verve Energy to be in non-compliance, System Management may only consider a deviation by an individual Electricity Generation

    Corporation Verve Energy facility from an output level specified in any instruction from System Management to be non-compliance if the deviation at any time exceeds 10 MW; and
  - (d) In the event that System Management deems the Electricity Generation CorporationVerve Energy to be in non-compliance for a Trading Interval then System Management must determine a single MWh quantity describing the total non-compliance of the Electricity Generation CorporationVerve Energy for that Trading Interval.

#### 7.7. Dispatch Instructions

7.7.1. A Dispatch Instruction is an instruction issued by System Management to a Market Participant, other than the Electricity Generation Corporation Verve Energy in respect of its Verve Energy Balancing Portfolio, directing that the Market Participant vary the output or consumption of one of its Registered Facilities from the level indicated in its Resource Plan, or to vary the output of any Registered

- Facility holding Capacity Credits but not included in a Resource Plan, for <u>a</u> specified Trading Intervals.
- 7.7.1A. A Market Participant must comply with a Dispatch Instruction or an Operating Instruction until such time as it receives another Dispatch Instruction or an Operating Instruction requiring it to operate its Facility at a different level.
- 7.7.2. Each Dispatch Instruction <u>issued to a Non-Balancing Facility Out of Merit</u> must:
  - (a) be consistent with the latest data described in clause 7.1.1 available to System Management at the time the Dispatch Instruction is determined;
  - (b) be applicable to a specific Registered Facility; and
  - (c) be issued at a time that takes into account the Standing Data minimum response time for the Registered Facility.
- 7.7.3. Each Dispatch Instruction must contain the following information:
  - (a) the Registered Facility to which the Dispatch Instruction relates;
  - (b) the time the Dispatch Instruction was issued;
  - (c) the time by at which the response to the Dispatch Instruction is required to commence (which must not be earlier than the time it was issued, except as contemplated by clause 7.7.7(b));
  - (d) the required level of sent out generation or consumption which may be any one of the following:
    - i. a target MW output; or
    - ii. a minimum MW level[Blank]; or
    - iii. a required decrease in consumption (in MW) for a Demand Side Programme; and
  - (e) the ramp-rate to maintain until the required level of sent out generation or consumption is reached, if a ramp rate has been identified in Standing

    Data which must not exceed any applicable Ramp Rate Limit.
- 7.7.3A. Each Operating Instruction must contain the following information:
  - (a) the Registered Facility to which the Operating Instruction relates;
  - (b) the time the Operating Instruction was issued;
  - (c) the time at which the response to the Operating Instruction is required to commence;
  - (d) if applicable, the required level of sent out generation or consumption; and

- (e) whether the Operating Instruction relates to a Network Control Service

  Contract, an Ancillary Service Contract, a Test or a Supplementary

  Capacity Contract.
- 7.7.4. [Blank] System Management must determine which Facilities will be the subject of Dispatch Instructions by applying the Dispatch Merit Order relevant to the action required, except where:
  - (a) System Management believes it is not feasible to do so having regard to:
    - i. the Standing Data minimum response times; or
    - ii. transmission, ramping or other operational constraints; or
  - (b) the Dispatch Instruction is issued in connection with an Ancillary Service Contract, a Network Control Service Contract, a Balancing Support Contract or any test of equipment allowed under these Market Rules; or
  - (c) the Dispatch Balancing Merit Order would otherwise require that System
    Management dispatch a Demand Side Programme when, due to limitations
    on the availability of the Demand Side Programme, such dispatch would
    prevent that Demand Side Programme from being available to System
    Management at a later time when it would have greater benefit with
    respect to maintaining Power System Security and Power System
    Reliability.
- 7.7.4A. When selecting <a href="Demand Side Programmes">Demand Side Programmes</a> <a href="Non-Balancing Facilities">Non-Balancing Facilities</a> from the <a href="Non-Balancing Facilities</a> from the <a href="Non-Balancing Facilities</a> from the <a href="Non-Balancing Facilities</a> from t
  - only discriminate between Demand Side Programmes Non-Balancing

    Facilities based on size of the capacity, response time and availability-of different Demand Side Programmes; and
  - (b) permit System Management to not curtail a Demand Side Programme
    when, due to limitations on the availability of the Demand Side Programme,
    such curtailment would prevent that Demand Side Programme from being
    available to System Management at a later time when it would have
    greater benefit with respect to maintaining Power System Security and
    Power System Reliability.
- 7.7.5. A Dispatch Instruction for a <u>Balancing Facility Out of Merit and a Non-Balancing Facility for a Trading Interval must not be issued earlier than 2:00\_PM on the Scheduling Day for the Trading Day on which the Trading Interval falls or later than the end of the Trading Interval.</u>
- 7.7.5A. For the purpose of determining the quantity described in clause 6.17.6(c)(i) for each Trading Interval the quantity is:

- (a) where System Management has been provided with information in accordance with clause 7.7.5B, System Management's estimate of the MWh reduction in output, by Trading Interval, of the Non-Scheduled Generator as a result of System Management's Dispatch Instruction.; or
- (b) in the case of a Non-Scheduled Generator included in a Resource Plan, for which System Management has not been provided with information in accordance with clause 7.7.5B, the greater of zero and the MWh difference between the Resource Plan MWh quantity of the Non-Scheduled Generator less the MWh output of the Non-Scheduled generator over the Trading Interval implied by its Dispatch Instruction.

#### 7.7.5A. System Management must:

- (a) determine the estimate in clause 6.15.1(b)(i) in accordance with the Power System Operation Procedure which may take into account the information provided under clause 7.7.5B; and
- (b) to provide the estimate to the IMO as soon as reasonably practicable but in any event in time for settlements under Chapter 9.
- 7.7.5B. A Market Participant maymust provide System Management with information specified in the Power System Operation Procedure to support the calculation of the quantity described in clauses 7.7.5A(a)and 7.7.4E6.15.1(b)(i).
- 7.7.5C. The Power System Operation Procedure must specify that actual wind data for the site of a wind farm and the number of turbines operating, if made available by a Market Participant to System Management, are sufficient to allow System Management to determine what the output of a wind farm would have been had no Dispatch Instruction been issued.

#### 7.7.5D. [Blank]

#### 7.7.6. Subject to clause 7.7.7:

- (a) and clause 7.7.7A, System Management must issue a Dispatch Instruction or an Operating Instruction by communicating it to the relevant Market Participant in accordance with the Power System Operation Procedure.

  The Power System Operational Procedure must prescribe a communication method or methods which by telephone, allowing sufficient time for the Market Participant to confirm and to respond to that Dispatch Instruction; and
- (b) when issued a Dispatch Instruction in accordance with (a), 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, if any, to which

the Market Participant can comply with the Dispatch Instruction or Operating Instruction. The advice and confirmation under this clause 7.7.6(a) must be made in the time and manner set out in the Power System Operation Procedure and as soon as practicable confirm its ability to comply with the Dispatch Instruction.

- 7.7.6A. Where System Management does not receive confirmation in accordance with clause 7.7.6(b) that a Market Participant has received the Dispatch Instruction, the Market Participant is deemed to have refused to comply with the Dispatch Instruction.
- 7.7.7. Clause 7.7.6 does not apply where:
  - System Management has operational control of the relevant Registered Facility in accordance with clause 7.8, in which case System Management may communicate the Dispatch Instruction or Operating Instruction at a later time and by a method agreed with the Market Participant.; or
- 7.7.7A(b) Clause 7.7.6 does not apply where the Dispatch-Operating Instruction is deemed to have been issued in respect of a Registered Facility in accordance with an Ancillary Service Contract or Network Control Service Contract and relates to the automatic activation of the Ancillary Service or Network Control Service in which case System Management may communicate the Dispatch Instruction Operating Instruction to the relevant Market Participant at a later time in accordance with the Ancillary Services contract or Network Control Service Contract.
- 7.7.8. System Management must record all Dispatch Instructions <u>and Operating</u>
  <u>Instructions</u>, including confirmations of receipt received from Market Participants, in a form sufficient for independent audit and for settlement purposes.
- 7.7.9. System Management must document the procedure System Management and Market Participants must follow in forming, issuing, recording, receiving and confirming Dispatch Instructions and Operating Instructions and in determining the quantities described in clauses 6.15.1(b)(i)7.7.5A and 7.7.5D in the Power System Operation Procedure, and:
  - (a) System Management must follow that documented Market Procedure when issuing, recording, and confirming a Dispatch Instruction and in determining the quantities described in clauses 7.7.5A6.15.1(b)(i) and 7.7.5D; and
  - (b) Market Participants must follow that documented Market Procedure when receiving and confirming a Dispatch Instruction and in providing information to support the calculation of the quantity described in clause 7.7.5A6.15.1(b)(i).
- 7.7.10. When System Management has issued a Dispatch Instruction <u>or an Operating</u>

  Instruction to a Demand Side Programme to decrease its consumption, System

Management may issue a further Instruction terminating the requirement for the Demand Side Programme decrease its consumption providing that:

- the further instruction is issued at least four hours before it is to come into effect; and
- (b) the minimum period for which the Demand Side Programme is instructed to decrease its consumption is not less than two hours.

# 7.8. Dispatch Instructions <u>and Operating Instructions</u> Implemented by System Management

- 7.8.1. System Management may, by agreement with a Market Participant, maintain operational control over aspects of a Registered Facility, including, but not limited to:
  - (a) the starting, loading and stopping of one or more of that Market Participant's Scheduled Generators; and/or
  - (b) limiting the output of one or more of that Market Participant's Non-Scheduled Generators.
- 7.8.2. The maintenance of operational control of a Registered Facility by System

  Management does not remove the obligation on System Management to produce

  Dispatch Instructions or Operating Instructions for those Registered Facilities.

#### 7.9. Commitment

- 7.9.1. Subject to clauses <u>7.9.1A and</u> 7.9.2 <u>and 7.9.1A</u>, if a Market Participant intends to synchronise a Scheduled Generator, then it must confirm with System Management the expected time of synchronisation:
  - (a) at least one hour before the expected time of synchronisation; and
  - (b) must update this advice immediately if the time confirmed pursuant to clause 7.9.1(a) changes.
- 7.9.1A. Clause 7.9.1(a) does not apply, where a Market Participant intends to synchronise a Scheduled Generator within an hour of desynchronisation, in which case it must: confirm with System Management the expected time of synchronisation:
  - (a) <u>confirm with System Management the expected time of synchronisation</u> immediately <u>as</u> it is known; and
  - (b) update this advice immediately if the time advised pursuant to clause 7.9.1A(a) changes.
- 7.9.2. Clause 7.9.1(a) does not apply where System Management has issued a Dispatch Instruction or an Operating Instruction, or an instruction given under clause

- 7.6A.3(a), to the Facility that requires synchronisation within one hour of the Dispatch Instruction, the Operating Instruction or an instruction given under clause 7.6A.3(a), being issued.
- 7.9.3. System Management may request that a Market Participant who has given a confirmation under clause 7.9.1 provide further notification to System Management immediately before synchronisation of the Facility, and the relevant Market Participant must comply with the request.
- 7.9.4. System Management must grant permission to synchronise unless:
  - (a) the synchronisation is not in accordance with the relevant Resource Plan, or Dispatch Instruction or Operating Instruction or an instruction issued under clause 7.6A.3(a); or
  - (b) System Management considers that it would not be able to meet the criteria set out in clause 7.6.1 were synchronisation to occur; or
  - (c) in the case of a Facility that is undergoing Commissioning Tests, synchronisation is not in accordance with the Commissioning Test plan for the Facility approved by System Management pursuant to clause 3.21A.
- 7.9.5. Subject to clauses 7.9.6 and 7.9.6A, if a Market Participant intends to desynchronise a Scheduled Generator, then it must confirm with System Management the expected time of desynchronisation:
  - (a) at least one hour before the expected time of desynchronisation; and
  - (b) must update this advice immediately if the time confirmed pursuant to clause 7.9.5(a) changes.
- 7.9.6. Clauses 7.9.5(a) and 7.9.6A do not apply where System Management has issued a Dispatch Instruction, an Operating Instruction or an instruction given under clause 7.6A.3(a), to the Facility that requires desynchronisation within one hour of the Dispatch Instruction, the Operating Instruction or an instruction given under clause 7.6A.3(a), being issued.
- 7.9.6A. If aA Market Participant may not intends to decommit a Facility to such an extent that it will not be available to be synchronised for four hours or more after the time of desynchronisation, unless then the Market Participant must have has been granted permission by System Management to do this in accordance with clause 3.21B.
- 7.9.7. System Management may request that a Market Participant who has given a confirmation under clause 7.9.5 provide further notification to System Management immediately before desynchronisation of the Facility, and the relevant Market Participant must comply with the request.
- 7.9.8. System Management must grant permission to desynchronise unless:

- (a) the desynchronisation is not in accordance with the relevant Resource Plan or Dispatch Instruction, Operating Instruction or an instruction issued under clause 7.6A.3(a); or
- (b) System Management considers that it would not be able to meet the criteria set out in clause 7.6.1 were desynchronisation to occur.
- 7.9.9. A Market Participant must comply with a decision of System Management under clause 7.9.4.
- 7.9.10. Subject to clause 7.9.11, a Market Participant must comply with a decision of System Management under clause 7.9.8.
- 7.9.11. A Market Participant is not required to comply with clause 7.9.5 or with clause 7.9.10 if such compliance would endanger the safety of any person, damage equipment, or breach any applicable law.
- 7.9.12. Where a Market Participant cannot comply with clause 7.9.5, in accordance with clause 7.9.11, or with a decision of System Management under clause 7.9.8:
  - (a) the Market Participant must inform System Management as soon as practicable; and
  - (b) if System Management did not confirm the expected time of desynchronisation or refused to allow desynchronisation of a Facility but the Market Participant did desynchronise that Facility then System Management must record the desynchronisation as a Forced Outage.

# **Dispatch Compliance**

- 7.10. Compliance with Resource Plans and Dispatch Instructions and Operating Instructions
- 7.10.1. Subject to clause 7.10.2, a Market Participant other than the Electricity Generation

  Corporation must comply with:
  - (a) [Blank]subject to paragraph (b), its Resource Plan, except where it relates to Intermittent Generators;
  - (b) if a Dispatch Instruction, an Operating Instruction or a Dispatch Order has been issued for a Registered Facility for a Trading Interval, the most recently issued Dispatch Instruction, Operating Instruction or Dispatch Order applicable to the Registered Facility for the Trading Interval; and
  - (c) the requirements of clause 7.7.1A; and
  - (d) a direction given to the Market Participant under clauses 7.6 or 7.10.7(a).
- 7.10.2A. A Market Participant is not required to comply with a Dispatch Instruction where the Market Participant has advised System Management in accordance with

- clause 7.10.3 that it cannot comply with the Dispatch Instruction and the non compliance is due solely to an Outage.
- 7.10.2. A Market Participant is not required to comply with clause 7.10.1 if such compliance would endanger the safety of any person, damage equipment, or breach any applicable law, or is subject to an approved Equipment Test pursuant to clause 3.21AA.
- 7.10.3. Where a Market Participant cannot meet its Resource Plan, a Dispatch Instruction, an Operating Instruction or a direction given under clauses 7.6 or 7.10.7(a), as applicable, it must inform System Management as soon as practicable.
- 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 reduced extent to which it can comply, the
  Market Participant must comply with the Dispatch Instruction or Operating
  Instruction but only to that reduced extent. A Market Participant's failure to fully
  comply with the Dispatch Instruction is not excused by this clause 7.10.3A.
- 7.10.4. System Management must monitor the behaviour of Market Participants with Registered Facilities to assess whether they are complying with clause 7.10.1 in accordance with its Monitoring and Reporting Protocol.
- 7.10.5. Subject to clause 7.10.5A, wWhere System Management considers that a Market Participant has not complied with clause 7.10.1 in relation to any of its Registered Facilities in a manner that is not within:
  - (a) threatens Power System Security or Power System Reliability;
  - (b) would require System Management to issue instructions to the Registered Facilities of the Electricity Generation Corporation or Registered Facilities covered by any Balancing Support Contract or Ancillary Service Contract; or
  - (c) would require System Management to issue Dispatch Instructions to other Registered Facilities in accordance with clauses 7.6.3 or 7.6.4; and
  - (i-a) the Tolerance Range determined in accordance with clause 2.13.6D; or
  - (ii.b) a Facility Tolerance Range determined in accordance with clause 2.13.6E, or, if applicable, varied in accordance with clause 2.13.6H,

System Management must as soon as reasonably practicable:

(c) warn the Market Participant about the deviation and request an explanation for the deviation; and

- (d) where the behaviour has not stopped or has not otherwise been addressed by System Management under Market Rules, request immediate cessation of the behaviour within a time that System Management considers reasonable.
- 7.10.5A. System Management is not required to follow the process in clause 7.10.5 where:
  - (a) it considers that a failure to comply with clause 7.10.1 does not threaten Power System Security or Power System Reliability;
  - (b) the Market Participant has notified System Management in advance that it expects to deviate from its Resource Plan:
    - i in order to subject the relevant Facility to testing, to enable it to enter full commercial operation for the first time; or
    - ii where System Management has approved an Equipment Test in accordance with clause 3.21AA for the Facility for the Trading Interval;
  - (c) the Market Participant has provided System Management with a testing plan;
  - (d) System Management has notified the Market Participant that it approves the plan; and
  - (e) the deviation is in System Management's opinion consistent with the activities detailed in the approved testing plan.
- 7.10.5B Where clause 7.10.5 applies, it is deemed to apply for the entire Trading Interval.
- 7.10.6. A Market Participant must comply with a request under clause 7.10.5.
- 7.10.6A. A Market Participant that cannot comply with a request under clause 7.10.5 must notify System Management as soon as practicable and must:
  - (a) include an explanation in that notification; and
  - (b) ensure it has complied with the requirements of Chapter 7A.
- 7.10.7. Where the Market Participant does not comply with the request referred to in clause 7.10.5, System Management:
  - (a) may issue directions to the Market Participant in respect of the output of that Registered Facility, without regard for the Dispatch Merit Order, with the objective of minimising the dispatch deviations of the Facility;
  - (<u>ba</u>) unless the deviation is within the Tolerance Range, must, in the time and form and manner prescribed in the IMS Interface Document Procedures,

report the failure to comply with the request referred to in clause 7.10.5, to the IMO. System Management must include in the report:

- i. the circumstances of the failure to comply with clause 7.10.1 and the request referred to in clause 7.10.5;
- ii. any explanation offered by the Market Participant as provided in accordance with clause 7.10.6A;
- iii. whether System Management issued instructions to the Registered Facilities of the Electricity Generation Corporation Verve Energy or Registered Facilities covered by any Balancing Support Contract or Ancillary Service Contract or issued Dispatch Instructions or Operating Instructions to other Registered Facilities as a result of the failure; and
- iv. an assessment of whether the failure threatened Power System Security or Power System Reliability; and
- (eb) if the deviation is within the Tolerance Range, may provide a report to the IMO containing the same information as specified in subclause (ab).

# **Advisories, Balancing Suspension and Reporting**

## 7.11. Dispatch Advisories

- 7.11.1. A Dispatch Advisory is a communication by System Management to Market Participants, Network Operators and the IMO that there has been, or is likely to be, an event that will require a significant deviation from Resource Plans, dispatch of Facilities Out of Merit or will restrict communication between System Management and any of the Market Participants, Network Operators, or the IMO.
- 7.11.2. System Management must issue a Dispatch Advisory for future potential events if it considers there to be a high probability that the event will occur within 48 hours of the time of issue.
- 7.11.3. Dispatch Advisories must be released as soon as practicable after System Management becomes aware of a situation requiring the release of a Dispatch Advisory.
- 7.11.3A. For the avoidance of doubt, where System Management must respond to an unexpected and sudden event, System Management may issue a Dispatch Advisory after the event has occurred.
- 7.11.4. System Management must inform Market Participants, Network Operators and the IMO of the withdrawal of a Dispatch Advisory as soon as practicable once the situation that the Dispatch Advisory relates to has finished.

- 7.11.5. System Management must release a Dispatch Advisory in the event of, or in anticipation of situations where:
  - (a) involuntary load shedding is occurring or expected to occur;
  - (b) committed generation at minimum loading is, or is expected to, exceed forecast load;
  - (c) Ancillary Service Requirements will not be fully met;
  - (d) significant outages of generation transmission or customer equipment are occurring or expected to occur;
  - (e) fuel supply on the Trading Day is significantly more restricted than usual, or if fuel supply limitations mean it is not possible for some Market Participants to supply in accordance with their Resource Plans;
  - (f) scheduling or communication systems required for the normal conduct of the scheduling and dispatch process are, or are expected to be, unavailable; or
  - (g) [Blank]System Management expects to issue a Dispatch Instruction Out of Merit including, for the purpose of this clause, issuing a Dispatch Order to the Verve Energy Balancing Portfolio in accordance with clause 7.6.2;
  - (h) [Blank]System Management expects to use LFAS Facilities other than in accordance with the LFAS Merit Order under clause 7B.3.9; or
  - (i) the system is in, or is expected to be in, a High Risk Operating State or an Emergency Operating State.
- 7.11.6. Subject to clause 7.11.6AA, a A Dispatch Advisory must contain the following information:
  - (a) [Blank]
  - (b) the date and time that the Dispatch Advisory is released;
  - (c) the time period for which the Dispatch Advisory is expected to apply;
  - (cA) the <u>Operating</u> <u>State</u> to be applicable, or expected to be applicable, at different times during the time period to which the Dispatch Advisory relates;
  - (d) details of the situation that the Dispatch Advisory relates to, including the location, extent and seriousness of the situation;
  - (dA) where System Management is to release a Dispatch Advisory under clause 7.11.5(g), details of the estimated Out of Merit quantities, reasons for the deviation from the BMO and all relevant information about the deviation;
  - (dB) where System Management is to release a Dispatch Advisory under clause 7.11.5(h), details of the estimated quantities of LFAS that are to be used,

- reasons for the deviation from the LFAS Merit Order and all relevant information about the deviation;
- (e) any actions System Management plans to take in response to the situation;
- (f) any actions Market Participants and Network Operators are required to take in response to the situation; and
- (g) any actions Market Participants may voluntarily take in response to the situation.
- 7.11.6AA If any information that would otherwise be released under clauses 7.11.6(d), (dA),

  (e), (f) or (g) is confidential or has a confidentiality status that would prevent the

  IMO from releasing the information, System Management must:
  - (a) release that information to the IMO but, subject to paragraph (b), ensure that the Dispatch Advisory contains information of only a general or aggregate nature so that the information publically released is not confidential; and
  - (b) include in the Dispatch Advisory the details of any circumstance that has given rise to System Management issuing the Dispatch Advisory, including:
    - the name of the Facility where that Facility has caused or materially contributed to the circumstances giving rise to the Dispatch Advisory;
    - ii. any likely change in the quantities of energy that, but for the circumstance, would have been dispatched under the Market Rules; and
    - iii. the quantities of energy likely to be dispatched Out of Merit.
- 7.11.6A. If System Management must issue directions to a Market Participant or a Network Operator under a High Risk Operating State or an Emergency Operating State prior to issuing a Dispatch Advisory then System Management may issue such directions as if a Dispatch Advisory had been issued provided that it informs the relevant Market Participant or Network Operator of the applicable operating state as soon as practicable.
- 7.11.7. Subject to clause 7.11.8, Market Participants and Network Operators must comply with directions that System Management issues in any Dispatch Advisory under clause 7.11.6(f), or directly to the Market Participant or Network Operator under clause 7.11.6A.
- 7.11.8. A Market Participant or Network Operator is not required to comply with clause 7.11.7 if such compliance would endanger the safety of any person, damage equipment, or breach any applicable law.
- 7.11.9. Market Participants, Network Operators and the IMO must inform System Management as soon as practicable if they become aware of any circumstances

that might reasonably be expected to result in System Management issuing a Dispatch Advisory.

## 7.12. Status Reports

- 7.12.1. System Management must provide a report to the IMO once every three months on the performance of the market with respect to the dispatch process. This report must include details of:
  - the incidence and extent of issuance of <u>Operating Instructions and</u>
     Dispatch Instructions;

  - (bA) the incidence and reasons for the issuance of Dispatch Instructions to

    Balancing Facilities Out of Merit, including for the purposes of this clause,
    issuing Dispatch Orders to the Verve Energy Balancing Portfolio in
    accordance with clause 7.6.2;
  - (c) the incidence and extent of transmission constraints;
  - (d) the incidence and extent of shortfalls in Ancillary Services, involuntary curtailment of load, High Risk Operating States and Emergency Operating States, together with:
    - a summary of the circumstances that caused each such incident;
       and
    - ii. a summary of the actions that System Management took in response to the incident in each case-; and
  - (e) the incidence and reasons for the selection and use of LFAS Facilities under clause 7B.3.9 the incidence of any Equipment Test approved in accordance with clause 3.21AA, including the date the Equipment Test occurred and the Facility details.
- 7.12.2. The IMO must publish the report described in clause 7.12.1 after removing any information that cannot be made public under these Market Rules or which it considers should not be made public.

# **Settlement and Monitoring Data**

## 7.13. Settlement and Monitoring Data

- 7.13.1. System Management must provide the IMO with the following data for a Trading Day by noon on the first Business Day following the day on which the Trading Day ends:
  - (a) the Operational System Load Estimate in each Trading Interval in the Trading Daya schedule of all of the Dispatch Orders that System

- Management issued for each Trading Interval in the Trading Day, including the information specified in the IMS Interface Document Procedures or as agreed between the IMO and System Management;
- (b) Load Forecasts prepared by System Management in accordance with clause 7.2.1(b);
- (c) a schedule of all of the Dispatch Instructions other than instructions with respect to Registered Facilities to which clauses 3.21A.14 or 4.25.10 apply, that System Management issued for each Trading Interval in the Trading Day by Market Participant and Facility, including the information specified in clause 7.7.3, or as agreed between the IMO and System Management;
- (cA) a schedule of the MWh output of each generating system monitored by System Management's SCADA system for each Trading Interval of the Trading Day;
- (cB) the maximum daily ambient temperature at the site of each generating system monitored by System Management's SCADA system for the Trading Day;
- (cC) a schedule of all the Operating Instructions that System Management issued for each Trading Interval in the Trading Day by Market Participant and Facility, including the information specified in clause 7.7.3A, or as agreed between the IMO and System Management, together with the reasons for the Operating Instruction;
- (d) a description of the reasons for each Dispatch Instruction issued, including a flag indicating where a Dispatch Instruction was issued in connection with:
  - i. any Ancillary Service Contract;
  - ii. any Balancing Support Contract;
  - fiii. any Network Control Service Contract;
  - iv. any test of equipment allowed under these Market Rules; or
  - any failure of an Electricity Generation Corporation a Verve Energy
     Facility to follow the scheduling and dispatch procedures relating to clause 7.6A;

The MWh energy dispatched under a Balancing Support Contract for each Trading Interval in the Trading Day by Facility;

(dA)(dB) the MWh quantity by which the Facility was instructed by System Management to increase its output or reduce its consumption under a Network Control Service Contract for each Trading Interval in the Trading Day by Facility;

- (dB) the SOI Quantity and the EOI Quantity of each Facility for each Trading Interval;
- (dC) the Relevant Dispatch Quantity for each Trading Interval;
- (e) [Blank]the quantity of any Ex-Post Upwards LFAS Enablement, that was being provided at the end of the Trading Interval together with the LFAS Facility that provided it;
- (eA) the quantity of any Upwards LFAS Backup Enablement that System

  Management activated by the end of the Trading Interval;
- (eAi) the quantity of any Downwards LFAS Backup Enablement that System

  Management activated by the end of the Trading Interval;
- (eAii) the quantity of any Ex-Post Downwards LFAS Enablement that was being provided at the end of the Trading Interval together with the LFAS Facility that provided it;
- (eAiii) by Trading Interval, the Load Rejection Reserve Quantity, the Load
  Rejection Response Quantity, the Spinning Reserve Quantity, the Spinning
  Reserve Response Quantity and the LFAS Response Quantity, calculated
  in accordance with the Power System Operating Procedure;
- (eAiv) the quantity of any Load Rejection Reserve Quantity that System Management activated under clause 6.16B.2(b)(ii)(3);
- (eAv) the quantity of any Spinning Reserve Quantity that System Management activated under clause 6.16B.1(b)(ii)(3);
- (eAvi) any Upwards LFAS Spinning Reserve Quantity in a Trading Interval;
- (eAvii) any Downwards LFAS Spinning Reserve Quantity in a Trading Interval;
- (eAB) details of notifications received by System Management in accordance with clause 7.5.4;
- the maximum amount of sent out energy estimated decrease, (in MWh), in the output of which each Non-Scheduled Generator, by Trading Interval, would have supplied in the Trading Interval had the Dispatch Instruction not been issued as a result of System Management Dispatch Instructions, as determined in accordance with clause 7.7.5A 6.15.1(b)(i), where this is to be used in settlement as the quantity described in clause 6.17.6(c)(i);
- (eDC) the required decrease, in MWh, in the consumption of each Demand Side Programme, by Trading Interval, as a result of System Management a Dispatch Instructions, where Tthis is to be used in settlement as the quantity described in clause 6.17.6(cd)(i);
- (eE) in instances where System Management has not used an LFAS Facility which they would otherwise have been required to use under clause 7B.3.7, the reasons why it has not used the LFAS Facility;

(f) [Blank]

- (g) details of the instructions provided to:
  - Demand Side Programmes that have Reserve Capacity Obligations; and
  - ii. providers of Supplementary Capacity;
  - on the Trading Day; and
- (h) the identity of the Facilities which were subject to a Commissioning Test, or a test of Reserve Capacity Test or an Equipment Test for each Trading Interval of the Trading Day.
- 7.13.1A. System Management must provide the IMO with the following data for a Trading Day by noon on the fifteenth Business Day following the day on which the Trading Day ends:
  - (a) the MWh quantity of non-compliance by the Electricity Generation

    Corporation Verve Energy by Trading Interval; and
  - (b) the schedule of all Planned Outages, Forced Outages and Consequential Outages relating to each Trading Interval in the Trading Day by Market Participant and Facility;
- 7.13.1B. If System Management advises the IMO that it has been prevented from completing the relevant processes that enable the provision of the data described in clause 7.13.1, the IMO may extend the timeline prescribed in clause 7.13.1, subject to any such extension not resulting in a delay of that timeline of more than two business days, and must advise System Management of any such extension as soon as practicable.
- 7.13.1C. System Management must, within 10 Business Days of receipt of a request from the IMO, provide the IMO with the following information:
  - (a) a schedule of all instructions provided to the Electricity Generation Corporation Verve Energy's Non-Scheduled Generators to deviate from the Dispatch Plan or change their commitment or output in accordance with clause 7.6A.3(a) for each Trading Interval during the time period specified by the IMO in its request; and
  - (b) where the Electricity Generation Corporation Verve Energy has made actual wind data available in accordance with clause 7.7.5B, the estimated decrease, in MWh, in the output of each Electricity Generation Corporation Verve Energy Non-Scheduled Generator as a result of an instruction from System Management to deviate from the Dispatch Plan or change their commitment or output in accordance with clause 7.6A.3(a), as determined in accordance with clause 7.7.5E, for each Trading Interval during the time period specified by the IMO in its request, where this is to be used in the calculation of the Relevant Level described in clause 4.11.3A.

# Chapter 7

- 7.13.2. System Management must maintain systems capable of providing the data described in clause 10.5.1(y) to the Market Web Site as soon as practicable following the completion of a Trading Interval.
- 7.13.3. System Management must document in the Power System Operation Procedure the procedure to be followed in providing settlement and monitoring data to the IMO. System Management and Rule Participants must comply with that documented Market Procedure.
- 7.13.4. System Management must provide the IMO with SCADA data by Facility in accordance with the IMS Interface Document Procedures.

# 7A. Balancing Market

### 7A.1. Balancing Market

- 7A.1.1. The IMO is to operate the Balancing Market.
- 7A.1.1A. The IMO is to determine the Balancing Market Commencement Day, which must be no earlier than 1 April 2012 and no later than 1 July 2012.
- 7A.1.2. The objectives of the Balancing Market are to:
  - (a) enable Balancing Facilities to participate in the Balancing Market;
  - (b) dispatch the lowest cost combination of Facilities made available for Balancing:
  - (c) establish a Balancing Price which is consistent with dispatch;
  - (d) seek to ensure timely and accurate Balancing pricing and quantity information, including forecasts, and system security information, is provided to all Market Participants; and
  - (e) seek to ensure timely and accurate information relevant to the operation and administration of the Balancing Market is provided to affected Rule Participants.
- 7A.1.3. The Balancing Market Objectives support, but are subservient to, the Wholesale

  Market Objectives. To the extent that an application of the Balancing Market

  Objectives results in an inconsistency with the Wholesale Market Objectives, the latter prevails to the extent of the inconsistency.
- 7A.1.4. All Rule Participants must take into account the Balancing Market Objectives in undertaking their functions and obligations under this Chapter 7A.
- 7A.1.5. The IMO must develop market procedures for Balancing Facility Requirements specifying technical and communication criteria that a Balancing Facility, or a type of Balancing Facility, must meet, including:
  - (a) Facility quantity parameters and limits for participation in Balancing;
  - (b) the manner and forms of communication to be used while participating in Balancing, including receiving Dispatch Instructions;
  - (c) the type of the restrictions the IMO may impose under clause 7A.1.8(b) and the manner and circumstances in which they may be imposed and lifted; and

- (d) ramp rate limitations.
- 7A.1.6A. The IMO must consult with System Management when creating and amending the Balancing Facility Requirements.
- 7A.1.6. A Market Participant must ensure that its Balancing Facilities with a rated capacity equal to or greater than 10 MW meet the Balancing Facility Requirements.
- 7A.1.6B A Market Participant may inform the IMO that its Balancing Facilities with a rated capacity less than 10 MW meet the Balancing Facility Requirements.
- 7A.1.7. A Market Participant must, when required to do so by the IMO, provide in writing, all information reasonably required by the IMO in order to demonstrate that its Balancing Facilities meet the Balancing Facility Requirements.
- 7A.1.8. If based on the information provided to it under clause 7A.1.7, the IMO determines that a Balancing Facility, including a Balancing Facility with a rated capacity of less than 10 MW does not meet the Balancing Facility Requirements, the IMO may impose conditions on the manner in which the Market Participant must participate in the Balancing Market under these Market Rules, including:
  - (a) the price at which the Market Participant must submit a Balancing Submission; and
  - (b) the manner and time in which a Balancing Submission must be submitted.
- 7A.1.9. Where a suspension granted by the IMO under clause 7A.1.8(a) or a condition imposed by the IMO under clause 7A.1.8(b) is inconsistent with another clause in the Market Rules the suspension and/or condition is to be given effect notwithstanding that inconsistency.
- 7A.1.10. The IMO must publish a decision under clause 7A.1.8 to impose a condition together with the details of such condition.
- 7A.1.11. For the purposes of this Chapter 7A only, unless otherwise indicated, the Verve
  Energy Balancing Portfolio is to be treated as a single Balancing Facility and
  references in this Chapter 7A to a Balancing Facility are to be read as including a
  reference to the Verve Energy Balancing Portfolio.
- 7A.1.12. Where this Chapter 7A imposes a timeframe of "as soon as reasonably practicable", the IMO may prescribe, in a Market Procedure, the latest time by which it must be done.
- 7A.1.13. The IMO will determine a point in time immediately before the commencement of a

  Trading Interval for the purpose of setting the Balancing Gate Closure. The point
  in time must be no shorter than 2 hours immediately before the commencement of

- a Trading Interval and no longer than 6 hours and must be published on the Market Web Site.
- 7A.1.14. The IMO may, from time to time, change the point in time determined under clause
  7A.1.13 by publishing the new point in time on the Market Web Site and specifying
  the date from which the new point in time is to take effect, which shall be no earlier
  than 2 months from the date of publication.

### 7A.2. Balancing market submissions

#### 7A.2.1. A Market Participant must ensure that:

- (a) it has made a Balancing Submission in accordance with clause 7A.2.4 in respect of all of its Balancing Facilities, excluding Facilities in the Verve Energy Balancing Portfolio;
- (b) the Balancing Submission is for all Trading Intervals in the Balancing Horizon; and
- (c) the Balancing Submission is made before Balancing Gate Closure for those Trading Intervals.
- 7A.2.2. A Market Participant may submit a subsequent Balancing Submission in accordance with clause 7A.2.4 in respect of any of its Balancing Facilities, excluding Facilities in the Verve Energy Balancing Portfolio, and:
  - (a) the Balancing Submission may be for one or more Trading Intervals in the Balancing Horizon; and
  - (b) the Balancing Submission must be made before Balancing Gate Closure for any Trading Interval in the submission.

#### 7A.2.3. A Market Participant with a Balancing Facility that is:

- (a) the subject of an Operating Instruction; or
- (b) undergoing a Test that has an approved Test Plan,

must ensure that the price in the Balancing Price-Quantity Pair for a Balancing Submission submitted under this clause 7A.2 is at the Minimum STEM Price for the quantity for each Trading Interval specified in the Operating Instruction or the Test Plan. The provisions of this clause 7A.2.3 do not apply to the Verve Energy Balancing Portfolio.

### 7A.2.4. A Balancing Submission must:

(a) be in the manner and form prescribed and published by the IMO;

- (b) constitute a declaration by an Authorised Officer;
- (c) have Balancing Price-Quantity Pair prices within the Price Cap;
- (d) specify, for each Trading Interval in the Balancing Submission, whether the Balancing Facility is to use Liquid Fuel or Non-Liquid Fuel; and
- (e) specify, for each Trading Interval in the Balancing Submission, Ramp Rate Limits.
- 7A.2.5. When the IMO accepts a Balancing Submission from a Market Participant that complies with clause 7A.2.4(a) then, for the purposes of clause 7A.2.4(b), the submission will be deemed to constitute a declaration by an Authorised Officer of the Market Participant.
- 7A.2.6. A subsequent Balancing Submission made under clauses 7A.2.2, 7A.2.9(d), (e) or (f), 7A.2.10 or 7A.3.4 in respect of the same Balancing Facility covering the same Trading Interval as an earlier Balancing Submission, overrides the earlier Balancing Submission for, and has effect in relation to, that Trading Interval.
- 7A.2.7. Where a subsequent Balancing Submission is made under clause 7A.2.6, a

  Market Participant must create and maintain internal records of the reasons for submitting the subsequent Balancing Submission, including details of any changed circumstances and impacts of those circumstances that gave rise to the new Balancing Submission.
- 7A.2.8. A Balancing Submission for each Trading Interval in the Balancing Horizon for which Balancing Gate Closure has not occurred must accurately reflect:
  - (a) all information reasonably available to the Market Participant, including

    Balancing Forecasts published by the IMO, the information under clause

    7A.3.16 and the latest information available to it in relation to any Internal

    Constraint or External Constraint;
  - (b) the Market Participant's reasonable expectation of the capability of its

    Balancing Facilities to be dispatched in the Balancing Market; and
  - (c) the price at which the Market Participant submitting the Balancing
    Submission intends to have the Balancing Facility participate in
    Balancing.
- 7A.2.9. Verve Energy, in relation to the Verve Energy Balancing Portfolio:
  - (a) must, subject to clauses 7A.2.9(e) and 7A.2.9(f), ensure that its Balancing Portfolio Supply Curve accurately reflects:

- i. all information reasonably available to it, including Balancing
   Forecasts published by the IMO and the latest information
   available to it in relation to any Forced Outage for a Facility in
   the Verve Energy Balancing Portfolio;
- ii. Verve Energy's reasonable expectation of the capability of its
   Verve Energy Balancing Portfolio to be dispatched in the
   Balancing Market for that Trading Interval; and
- iii. the price at which Verve Energy intends to have the Verve Energy Balancing Portfolio participate in Balancing;
- (b) must indicate in a manner and form prescribed by the IMO:
  - which quantities in the Balancing Portfolio Supply Curve it has priced at the Minimum STEM Price are for Facilities that are to provide LFAS;
  - ii. Facilities which are likely to provide LFAS; and
  - iii. for each completed Trading Interval, which Facilities actually provided the LFAS in the Trading Interval;

#### (c) must:

- i. ensure that quantities in the Balancing Portfolio Supply Curve
   that are required for the provision of Ancillary Services, other
   than LFAS, are priced at the Price Caps, to reflect that these
   quantities are not generally available for Balancing;
- ii. advise the IMO in a manner and form prescribed by the IMO, the Facilities which are likely to provide the quantities in clause 7A.2.9(c)(i); and
- iii. for each completed Trading Interval, which Facilities actually provided the LFAS in the Trading Interval;
- (d) may update its Balancing Portfolio Supply Curve in relation to any

  Trading Interval in the Balancing Horizon for which Balancing Gate
  Closure has not occurred:
  - i. plus 2 hours by submitting it to the IMO immediately before 6:00PM; or
  - ii. otherwise by submitting it to the IMO within 1 hour after LFAS

    Gate Closure;

- (e) may update its Balancing Portfolio Supply Curve in relation to any
  Trading Interval in the Balancing Horizon for which Balancing Gate
  Closure has not occurred plus 2 hours if a Facility in the Verve Energy
  Balancing Portfolio has experienced a Forced Outage since the last
  Balancing Submission; and
- (f) may after the time specified in clause 7A.2.9(d), update its Balancing
  Portfolio Supply Curve to reflect the impact of any Forced Outage which,
  but for the Forced Outage, would have directly caused a Facility to run on
  Liquid Fuel in order to meet Verve Energy's Balancing obligations in
  relation to the Verve Energy Balancing Portfolio under this Chapter 7A.
- 7A.2.10. A Market Participant (other than Verve Energy in relation to the Verve Energy

  Balancing Portfolio) as soon as it becomes aware that a Balancing Submission for
  a Trading Interval for which Balancing Gate Closure has occurred is inaccurate:
  - (a) if the inaccuracy is due to an Internal Constraint must make a new, accurate Balancing Submission so that the quantity in the Balancing Submission reflects the available Sent Out Capacity and the Ramp Rate Limit is accurate but the price is not altered, in respect of that Trading Interval as soon as reasonably practicable;
  - (b) if the inaccuracy is due to an External Constraint may make a new, accurate Balancing Submission so that the quantity in the Balancing Submission reflects the available Sent Out Capacity and the Ramp Rate Limit is accurate but the price is not altered, in respect of that Trading Interval, as soon as reasonably practicable; or
  - (c) if due to the Market Participant being unable to conform with an approved

    Commissioning Test and the Market Participant has sought approval
    under clause 3.21A.13 for a new Commissioning Test may make a
    new, accurate Balancing Submission that reflects the new
    Commissioning Test under clause 3.21A.13.
- 7A.2.11. Where a Market Participant has submitted a Balancing Submission in accordance with clause 7A.2.10 after Balancing Gate Closure, the Market Participant must, as soon as reasonably practicable, provide the IMO with written details of the nature of the Internal Constraint or External Constraint, when it occurred and its duration.
- 7A.2.12. Where Verve Energy has submitted an updated Balancing Portfolio Supply Curve in accordance with clauses 7A.2.9(e) or 7A.2.9(f) because of a Forced Outage after the time specified in these clauses it must, as soon as reasonably practicable, provide the IMO with written details of:
  - (a) the nature of the Forced Outage;

- (b) when the Forced Outage occurred;
- (c) the duration of the Forced Outage; and
- (d) information substantiating the commercial impact, if any, of the Forced Outage.

### 7A.2.13. A Market Participant must:

- (a) make a Balancing Submission under this clause 7A.2 in good faith;
- (b) not act in a manner that:
  - i. is intended to lead; or
  - ii. the Market Participant should have reasonably known is likely to lead,
  - to another Rule Participant being misled or deceived as to the existence or non-existence of a material fact in the Balancing Market; and
- (c) not make a Balancing Submission containing prices that seek to influence the determination of the Constrained Off Competition Price, the Constrained Off Quantity which Facility may provide, the Constrained On Compensation Price or the Constrained On Quantity which Facility may provide.
- 7A.2.14. A Balancing Submission is made in good faith under clause 7A.2.13 if, at the time it is made, the Market Participant had a genuine intention to honour that Balancing Submission if the material conditions and circumstances upon which the Balancing Submission was based remained unchanged until the relevant Trading Interval.
- 7A.2.15. A Market Participant may be taken to have not made a Balancing Submission in good faith notwithstanding that, after all the evidence has been considered, the intention of the Market Participant is ascertainable only by inference from:
  - (a) the conduct of the Market Participant;
  - (b) the conduct of any other person; or
  - (c) the relevant circumstances.
- 7A.2.16. Subject to clauses 7A.2.3, 7A.2.9(c) and 7A.3.4, a Market Participant must not, for any Trading Interval, offer prices within its Balancing Submission in excess of the Market Participant's reasonable expectation of the short run marginal cost of the Balancing Facility, when such behaviour relates to market power.

- 7A.2.17. In determining whether a Market Participant has made a Balancing Submission in accordance with its obligations under this Chapter 7A, the IMO may take into account:
  - (a) historical Balancing Submissions, including changes made to Balancing
    Submissions in which a pattern of behaviour may indicate an intention to
    create a false impression in the Balancing Market;
  - (b) the timeliness and accuracy of notification of Forced Outages, Internal Constraints, External Constraints and any information provided under clauses 7A.2.11 or 7A.2.12;
  - (c) any information as to whether a Facility was not able to comply with a

    Dispatch Instruction from System Management and the reasons for that
    non compliance; and
  - (d) any other information that considered by the IMO to be relevant.
- 7A.2.18. For the purpose of Regulation 37(a) of the *Electricity Industry (Wholesale Electricity Market) Regulations 2004*, where a civil penalty is imposed for a contravention of clause 7A.2.8, clause 7A.2.9, clause 7A.2.13 or clause 7A.2.16 the civil penalty amount should be distributed amongst all Market Participants in proportion to their Market Fees calculated over the previous full 12 months, or part thereof if Balancing Market Commencement Day was less than 12 months, prior to the date the civil penalty is received.

### 7A.3. Balancing Market

#### **BMO and Pricing BMO**

- 7A.3.1. The IMO must convert the prices for each Trading Interval in Balancing Price

  Quantity Pairs in Balancing Submissions from Market Participants other than

  Verve Energy in respect of the Verve Energy Balancing Portfolio, into Loss Factor

  Adjusted Prices.
- 7A.3.2. The IMO must determine the BMO for a Trading Interval as the ranked list of Balancing Submissions which, subject to clause 7A.3.3 and clause 7A.3.4, is obtained by:
  - (a) ranking Balancing Price-Quantity Pairs for a Trading Interval and
    associated Balancing Facilities contained in Balancing Submissions in
    order of lowest to highest Loss Factor Adjusted Prices determined under
    clause 7A.3.1 and in the Balancing Portfolio Supply Curve; and
  - (b) where System Management provides a forecast of the EOI Quantity for a Non-Scheduled Generator under clause 7A.3.14 adjusted as if the Non-Scheduled Generator's Balancing Submission contained that quantity.

- 7A.3.3. In circumstances where there is a tie in the ranking of Balancing Facilities under clause 7A.3.2 in the BMO the IMO is to break the tie in accordance with the Market Procedure, which must give effect to the following descending order of priority:
  - (a) a Balancing Facility that meets the Balancing Facility Requirements;
  - (b) a Balancing Facility that is subject to a condition under clause 7A.1.8(b);
  - (c) a Balancing Facility that does not meet the Balancing Facility
    Requirements;
  - (d) a Balancing Facility providing any other Ancillary Service;
  - (e) a Balancing Facility providing LFAS; and
  - (f) priority will be given to the highest number based on the daily random number generator assigned.
- 7A.3.4A. A Balancing Facility assigned priority under clause 7A.3.4 means that the Facility will be placed in the BMO so that it will be issued a Dispatch Instruction in priority to the other Balancing Facility with which it was tied.
- 7A.3.4. A Market Participant must make a new Balancing Submission, other than for the Verve Energy Balancing Portfolio, within half an hour of the end of the Trading Interval in which the information is published under clause 7B.3.5(e) as follows:
  - (a) where its LFAS Price-Quantity Pair is selected under clause 7B.3.5(b) for the Trading Interval, so that the price in the selected LFAS Price-Quantity Pair for the quantity of capacity equal to the Upwards LFAS Enablement of the Facility for that Trading Interval, is at the Alternative Maximum STEM Price; and
  - (b) where its LFAS Price-Quantity Pair is selected under clause 7B.3.5(c) for the Trading Interval, so that the price in the selected LFAS Price Quantity-Pair for the sum of the quantity of capacity for the Facility specified in item 1(b)xiii of Standing Data, plus the quantity of capacity equal to the Downwards LFAS Enablement of the Facility for that Trading Interval is at the Minimum STEM Price.

#### 7A.3.5. The IMO must:

- (a) determine the BMO under clause 7A.3.2 for a Trading Interval using the most recent, valid Balancing Submissions available to it; and
- (b) each time the IMO creates a BMO, provide this BMO to System

  Management between 15 to 30 minutes before the start of the Trading
  Interval to which the BMO relates.

- 7A.3.6. System Management must, no later than 2 hours after the end of the Trading Day, provide the IMO with an estimate of:
  - (a) the SOI Quantity and the EOI Quantity for each Balancing Facility; and
  - (b) the Relevant Dispatch Quantity, which is the sum of the EOI Quantities for each Balancing Facility, in MW, at the end of a Trading Interval,
  - for each Trading Interval in the Trading Day, determined in accordance with the Power System Operation Procedure.
- 7A.3.7. The IMO must, by the end of a Trading Day where it has been provided with the information under clause 7A.3.6 for a Trading Interval:
  - (a) use that information to determine a Provisional Pricing BMO for that Trading Interval;
  - (b) use the Provisional Pricing BMO under clause 7A.3.7(a) to determine the
     Provisional Balancing Price, being the Loss Factor Adjusted Price
     corresponding to the point where the estimated Relevant Dispatch
     Quantity plus 1 MW intersects the Provisional Pricing BMO; and
  - (c) publish the Provisional Balancing Price on the Market Web Site.
- 7A.3.8. System Management must, as soon as reasonably practicable but in any event no later than 24 hours after the start of the Business Day following the time specified in clause 7A.3.6, provide the IMO with any updated adjustments to the information provided under clause 7A.3.6 and the IMO must use any such updated SOI Quantity and EOI Quantity information to revise the Provisional Pricing BMO accordingly.
- 7A.3.9. The IMO must, subject to clause 7A.3.12, use the Provisional Pricing BMO determined under clause 7A.3.7(a), as revised under clause 7A.3.8, to determine the Balancing Price, being the Loss Factor Adjusted Price corresponding to the point where the Relevant Dispatch Quantity plus 1 MW intersects the Pricing BMO. Where there is no change to the Provisional Balancing Price determined under clause 7A.3.7(b), that price is deemed to be the Balancing Price.
- 7A.3.10. The IMO must publish the Balancing Price for each Trading Interval in a Trading Day no later than 12 hours after the time specified in clause 7A.3.8.
- 7A.3.11. If System Management advises the IMO that it has been prevented from completing the relevant processes that enable the provision of the information described in clauses 7A.3.6 or 7A.3.8, the IMO may extend the timeline prescribed in clause 7A.3.10. No such extension may be given that would result in a delay of that timeline of more than two business days, and must advise Rule Participants of any such extension as soon as practicable.

- 7A.3.12. If the IMO is unable to determine the Balancing Price under clause 7A.3.9 in time to publish it in accordance with clause 7A.3.10, including because it has not received the information required to be provided by System Management under clauses 7A.3.6 or 7A.3.8, the IMO is to determine the Balancing Price:
  - where the Relevant Dispatch Quantity and/or Pricing BMO is not available, by using the BMO and/or the Forecast Relevant Dispatch Quantity for the Trading Interval so that the Balancing Price is the point where the Relevant Dispatch Quantity or most recent forecast of the Relevant Dispatch Quantity (as applicable) intersects the Pricing BMO or most recent BMO (as applicable);
  - (b) where the Pricing BMO and the BMO are not available for the Trading
    Interval the IMO is to use the most recent Forecast BMO in place of the
    BMO in (a); and
  - (c) where there is no Forecast BMO:
    - i. if the IMO is determining the Balancing Price for a Trading
      Interval in a Business Day, the Balancing Price will be the value
      for the equivalent Trading Interval in the most recent Trading
      Day in the past which is also a Business Day; or
    - ii. if the IMO is determining the Balancing Price for a Trading
      Interval in a day which is not a Business Day, the Balancing
      Price will be the value for the equivalent Trading Interval in the
      most recent Trading Day in the past which is also not a
      Business Day.
- 7A.3.13. Once the IMO has published the Balancing Price under clause 7A.3.10 it cannot be altered by:
  - (a) disagreement under clause 9.20.6 or
  - (b) disputes under clause 9.21.1.

### **Forecast BMO**

7A.3.14. System Management must, for each future Trading Interval in the Balancing
Horizon, provide the IMO with System Management's forecast of the Relevant
Dispatch Quantity, and may provide a forecast of the EOI Quantity for NonScheduled Generators, each determined in accordance with the Power System
Operation Procedure. System Management must, each time it has new
information on which to determine these quantities, update these forecasts and
provide the update to the IMO, but is not required to do so more than once per
Trading Interval.

- 7A.3.15. The IMO must, for each future Trading Interval in the Balancing Horizon determine a Forecast BMO.
- 7A.3.16. Where the IMO determines the Forecast BMO under clause 7A.3.15, the IMO must:
  - (a) provide to each Market Participant the Balancing quantities expected to be provided by that Market Participant for a Trading Interval in the Balancing Horizon; and
  - (b) provide to System Management the Forecast BMO.
- 7A.3.17A.The IMO must provide the information required under clause 7A.3.16 at the same time as the IMO publishes the Balancing Forecasts under clause 7A.3.19.

### **Balancing Forecast**

- 7A.3.17. The IMO must, if it has sufficient information available to it, determine and publish under clause 7A.3.19 the Balancing Forecasts for each Trading Interval in the Balancing Horizon in accordance with the Balancing Forecast Market Procedures.
- 7A.3.18. The IMO is to develop Balancing Forecast Market Procedures from time to time in accordance with the following principles:
  - (a) to the extent reasonably practicable, the Balancing Forecast and the Forecast BMO must use the latest information available to the IMO; and
  - (b) to provide Market Generators with information upon which to make an assessment regarding whether to make a Balancing Submission or to update a Balancing Submission in accordance with the Market Rules.
- 7A.3.19. The IMO must, to the extent it is reasonably able within the Trading Interval, commencing at 6:00 PM on Balancing Market Commencement Day:
  - (a) publish on the Market Web Site a Balancing Forecast for each Trading Interval during the Balancing Horizon;
  - (b) by the end of every half hour thereafter, publish a Balancing Forecast for each future Trading Interval in the Balancing Horizon; and
  - (c) as soon as practicable, publish any aggregate forecast output of Market
    Participants' Intermittent Generators which is received from System

    Management under clause 7.6A.2(c)i.

#### Settlement

7A.3.20. The IMO will convert all Balancing Submissions used in the BMO (other than the Balancing Portfolio Supply Curve) into Balancing Price-Quantity Pairs in relation to

a Market Participant's Resource Plan for the purposes of determining settlement under chapter 9.

# 7A.4. Verve Energy – Stand Alone Facilities

- 7A.4.1. Verve Energy may, at any time, nominate one of its Registered Facilities to be trialled as a Stand Alone Facility by providing notice to the IMO in the prescribed form.
- 7A.4.2. Subject to clause 7A.4.3, the IMO must, as soon as reasonably practicable after receiving the information specified in clause 7A.4.1:
  - (a) request System Management to advise whether the Facility should be rejected as a Stand Alone Facility due to potential impacts on the performance of System Management's functions in relation to the SWIS if the Facility were to become a Stand Alone Facility;
  - (b) if System Management advises within 5 days that the IMO should reject
     the Facility as a Stand Alone Facility, reject the nomination, otherwise
     accept the nomination; and
  - (c) notify Verve Energy of the IMO's decision.
- 7A.4.3. The IMO may only trial a Facility as a Stand Alone Facility under this clause 7A.4 once.
- 7A.4.4. If the IMO notifies Verve Energy that it accepts the nomination of the Stand Alone Facility for a trial, then:
  - (a) the IMO will notify Verve Energy of the Trading Day from which the trial of the nominated Stand Alone Facility will commence;
  - (b) subject to clause 7A.4.4(d), Verve Energy may trial the nominated Stand
    Alone Facility for a period of one month for the purposes of participating
    in the Balancing Market in accordance with this chapter 7A;
  - (c) 7 days before the end of that month Verve Energy must notify the IMO whether it wishes the nominated Stand Alone Facility to:
    - . cease being a Stand Alone Facility and to form part of the Verve Energy Balancing Portfolio; or
    - ii. permanently become a Stand Alone Facility; and
  - (d) the nominated Stand Alone Facility will be treated as a Stand Alone Facility until it either becomes a permanent Stand Alone Facility under clause 7A.4.9 or the trial ceases under clause 7A.4.8.

- 7A.4.5. If Verve Energy provides a notice under clause 7A.4.4(c)(i), then the IMO must notify Verve Energy of the time and date from which the nominated Stand Alone Facility will cease to be treated as a Stand Alone Facility.
- 7A.4.6. If Verve Energy provides a notice under clause 7A.4.4(c)(ii), then the IMO must:
  - (a) request System Management to provide updated views in light of the trial on any potential impacts on the performance of its functions in relation to the SWIS if the nominated Stand Alone Facility permanently becomes a Stand Alone Facility;
  - (b) if System Management advises within 5 days that the IMO should reject the nomination of the Stand Alone Facility, reject the nomination;
  - (c) otherwise accept the nominated Stand Alone Facility becoming a permanent Stand Alone Facility; and
  - (d) notify Verve Energy of the IMO's decision.
- 7A.4.7. System Management must, as soon as practicable after receiving a request by the IMO under clauses 7A.4.2(a) or 7A.4.6(a):
  - (a) consider all information reasonably available to it and advise the IMO of System Management's views on;
    - i. the potential impacts on the performance of System
       Management's functions in relation to the SWIS (if the nomination of the Stand Alone Facility is accepted or rejected), including system constraint impacts; and
    - ii. impacts on the provision of Ancillary Services; and
  - (b) advise the IMO whether to reject the nomination of the Stand Alone Facility together with reasons.
- 7A.4.8. If the IMO notifies Verve Energy that the nominated Stand Alone Facility is not to permanently become a Stand Alone Facility the nominated Stand Alone Facility will cease to be treated as a Stand Alone Facility from the time and date specified by the IMO in the notice to Verve Energy.
- 7A.4.9. The nominated Stand Alone Facility permanently becomes a Stand Alone Facility if the IMO notifies Verve Energy that it is to permanently become a Stand Alone Facility.

# 7B. Load Following Ancillary Service Market

## 7B.1. LFAS Market

- 7B.1.1. The IMO is to operate the LFAS Market.
- 7B.1.2. System Management must, in the Power System Operation Procedure, specify any technical and communication criteria that an LFAS Facility, or a type of LFAS Facility, must meet, including:
  - (a) Facility quantity parameters and limits in providing LFAS, including the Minimum LFAS Quantity;
  - (b) the manner and forms of communication to be used in providing LFAS,
     including how LFAS Facilities which are Non-Scheduled Generation
     Facilities, are to be activated; and
  - (c) the nature and type of any enablement and quantity restrictions that will apply.
- 7B.1.3. A Market Participant must ensure that its LFAS Facility meets the LFAS Facility Requirements.
- 7B.1.4. System Management must, by 12:00 PM on the Scheduling Day, provide the IMO with System Management's forecast of the LFAS Quantity for each Trading Interval in the next Trading Day, determined in accordance with the Power System Operation Procedure.
- 7B.1.5. System Management may, for any Trading Interval in the Balancing Horizon for which LFAS Gate Closure, plus 60 minutes, has not occurred, update the forecast LFAS Quantity provided under clause 7B.1.4.
- 7B.1.6. For the purposes of this Chapter 7B only, unless otherwise indicated, the Verve Energy Balancing Portfolio is to be treated as a single LFAS Facility and references in this Chapter 7B to an LFAS Facility are to be read as including a reference to the Verve Energy Balancing Portfolio.

### **7B.2.** LFAS Submissions

- 7B.2.1. A Market Participant may submit an LFAS Submission:
  - (a) in accordance with clause 7B.2.7 in respect of any of its LFAS Facilities, other than the Verve Energy Balancing Portfolio;
  - (b) for any or all Trading Intervals in the LFAS Horizon; and
  - (c) before LFAS Gate Closure for those Trading Intervals.

- 7B.2.2. A Market Participant may submit a new, updated LFAS Submission:
  - (a) in accordance with clause 7B.2.7 in respect of any of its LFAS Facilities, other than the Verve Energy Balancing Portfolio;
  - (b) for one or more Trading Intervals in the LFAS Horizon; and
  - (c) before LFAS Gate Closure for those Trading Intervals.
- 7B.2.3. Subject to clause 7B.2.5, Verve Energy must immediately before 6:00 PM submit an LFAS Submission, for one or more Trading Intervals in the Balancing Horizon for which LFAS Gate Closure has not occurred, by submitting it to the IMO in accordance with clauses 7B.2.6 and 7B.2.7.
- 7B.2.4. Subject to clause 7B.2.5, Verve Energy may submit or update an LFAS

  Submission, for one or more Trading Intervals in the Balancing Horizon for which

  LFAS Gate Closure has not occurred, by submitting it to the IMO:
  - (a) in accordance with clauses 7B.2.5 and 7B.2.7; and
  - (b) at the time it submits an updated Balancing Price Supply Curve under clause 7A.2.9(d).
- 7B.2.5. Verve Energy must ensure that, for each Trading Interval for which it has made

  LFAS Submissions under this Chapter 7B, the sum of the MW quantities contained
  in those LFAS Submissions equals at least the latest forecast LFAS Quantity for
  that Trading Interval published under clause 7B.3.16(b), if any.
- 7B.2.6. Verve Energy, in its LFAS Submission, must include a cost per MW for providing any Upwards LFAS Backup Enablement and for providing any Downwards LFAS Backup Enablement for each Trading Interval in the Balancing Horizon.
- 7B.2.7. An LFAS Submission must:
  - (a) be in the manner and form prescribed and published by the IMO;
  - (b) constitute a declaration by an Authorised Officer; and
  - (c) reflect any enablement or quantity restrictions specified by System

    Management under clause 2.34.7C(b) LFAS Standing Data.
- 7B.2.8. When the IMO accepts an LFAS Submission from a Market Participant that complies with clause 7B.2.7(a) then, for the purposes of clause 7B.2.7(b), the submission will be deemed to constitute a declaration by an Authorised Officer of the Market Participant.
- 7B.2.9. A subsequent LFAS Submission made under clause 7B.2.2 or clause 7B.2.4 in respect of the same LFAS Facility covering the same Trading Interval as an earlier

- <u>LFAS Submission</u>, overrides the earlier <u>LFAS Submission</u> for, and has effect in relation to, that Trading Interval.
- 7B.2.10. A Market Participant with an LFAS Facility, and Verve Energy in respect of the

  Verve Energy Balancing Portfolio, must ensure that any LFAS Submission for a

  Trading Interval in the LFAS Horizon for which LFAS Gate Closure has not occurred accurately reflects:
  - (a) all information reasonably available to it;
  - (b) the Market Participant's reasonable expectation of the capability of the LFAS Facility to provide the LFAS to the LFAS Market; and
  - (c) the price at which the Market Participant intends to have the LFAS Facility provide LFAS.

### 7B.2.11. A Market Participant must:

- (a) make an LFAS Submission under this clause 7B.2 in good faith; and
- (b) not act in a manner that:
  - i. is intended to lead; or
  - ii. the Market Participant should have reasonably known is likely to lead,
  - to another Rule Participant being misled or deceived as to the existence or non existence of a material fact in the LFAS Market.
- 7B.2.12. An LFAS Submission is made in good faith under clause 7B.2.11 if, at the time it is made, the Market Participant had a genuine intention to honour that LFAS

  Submission if the material conditions and circumstances upon which the LFAS

  Submission was based remained unchanged until the relevant Trading Interval.
- 7B.2.13. A Market Participant may be taken to have not made an LFAS Submission in good faith notwithstanding that, after all the evidence has been considered, the intention of the Market Participant is ascertainable only by inference from:
  - (a) the conduct of the Market Participant;
  - (b) the conduct of any other person; or
  - (c) the relevant circumstances.
- 7B.2.14. A Market Participant must not, for any Trading Interval, offer prices within its LFAS

  Submission in excess of the Market Participant's reasonable expectation of the

  incremental change in short run marginal cost incurred of the LFAS Facility

  providing LFAS when such behaviour relates to market power.

- 7B.2.15. In determining whether a Market Participant has made an LFAS Submission in accordance with its obligations under this Chapter 7B, the IMO may take into account:
  - (a) historical LFAS Submissions and/or Balancing Submissions, including changes made to LFAS Submissions and/or Balancing Submissions in which a pattern of behaviour may indicate an intention to create a false impression in the LFAS Market;
  - (b) any information as to whether a Facility was not able to provide LFAS and the reasons for that failure; and
  - (c) any other information that considered by the IMO to be relevant.
- 7B.2.16. For the purpose of Regulation 37(a) of the *Electricity Industry (Wholesale Electricity Market) Regulations 2004*, where a civil penalty is imposed for a contravention of clause 7B.2.10, clause 7B.2.11, clause 7B.2.14, clause 7B.2.17 or clause 7B.2.18 the civil penalty amount must be distributed amongst all Market Participants in proportion to their Market Fees calculated over the previous full 12 months, or part thereof if Balancing Market Commencement Day was less than 12 months, prior to the date the civil penalty is received.
- 7B.2.17. Where an LFAS Facility is selected under clauses 7B.3.5(b) or (c) to provide LFAS in a Trading Interval, then a Market Participant must, as soon as it becomes aware that the LFAS Facility is physically unable to provide some or all of the LFAS Quantity for which it has been selected, advise the IMO and System Management, in the manner and form prescribed by the IMO, whether the LFAS Facility is physically able to provide any LFAS in that Trading Interval and if so, the quantity, in MW.
- 7B.2.18. Where an LFAS Facility is selected under clauses 7B.3.5(b) or (c) to provide LFAS in a Trading Interval, then a Market Participant must, unless it has provided advice to the IMO under clause 7B.2.17, provide the LFAS in the Trading Interval when required to do so by System Management under the Market Rules.

## 7B.3 LFAS Merit Order

- 7B.3.1. The IMO must convert the prices for each Trading Interval in LFAS Price-Quantity
  Pairs in LFAS Submissions from Market Participants, other than Verve Energy in
  respect of the Verve Energy Balancing Portfolio, into Loss Factor Adjusted Prices.
- 7B.3.2. The IMO must determine the LFAS Upwards Merit Order for a Trading Interval by deriving a ranked list of LFAS Submissions and associated LFAS Facilities.

  Subject to clause 7B.3.4, the list is obtained by ranking LFAS Upwards Price-Quantity Pairs for a Trading Interval contained in LFAS Submissions in order of lowest to highest price.

- 7B.3.3. The IMO must determine the LFAS Downwards Merit Order for a Trading Interval by deriving a ranked list of LFAS Submissions and associated LFAS Facilities.

  Subject to clause 7A.3.4, the list is obtained by ranking LFAS Downwards Price-Quantity Pairs for a Trading Interval contained in LFAS Submissions in order of lowest to highest price.
- 7B.3.4. In circumstances where there is a tie in the ranking of LFAS Facilities under clause 7B.3.2 or clause 7B.3.3 in the LFAS Merit Order the IMO is to assign priority to break the tie for the Trading Day of the Trading Interval in which the tie occurred. Priority will be given to the highest number based on the daily random number generator assigned.

#### 7B.3.5. The IMO must to the extent that it is able:

- (a) determine the LFAS Merit Order for each Trading Interval in the LFAS

  Horizon for which LFAS Gate Closure has occurred, as soon as
  reasonably practicable after the LFAS Gate Closure, using the most
  recent, valid LFAS Submissions available to it;
- (b) subject to clause 7B.3.6, select from the LFAS Merit Order derived under clause 7B.3.5(a) the lowest priced LFAS Upwards Price-Quantity Pair or LFAS Upwards Price-Quantity Pairs, and associated LFAS Facility or LFAS Facilities, so that:
  - i. the capacity in the lowest priced LFAS Upwards Price-Quantity
    Pair, or the sum of the capacity in the lowest priced LFAS
    Upwards Price-Quantity Pairs, equals the latest forecast
    quantity of any capacity published under clause 7B.3.16(b);
    and
  - ii. if only part of the capacity in the lowest priced, or next lowest priced, LFAS Upwards Price-Quantity Pair is required to make up the latest forecast quantity of any capacity published under clause 7B.3.16(b), that LFAS Upwards Price-Quantity Pair is selected for that part of its capacity only:
- (c) subject to clause 7B.3.6, select from the Downwards LFAS Merit Order derived under clause 7B.3.5(a) the lowest priced LFAS Downwards Price-Quantity Pair or Pairs, and associated LFAS Facility or Facilities, so that:
  - i. the capacity in the lowest priced LFAS Downwards Price Quantity Pair, or the sum of the capacity in the lowest priced
     LFAS Downwards Price-Quantity Pairs, equals the latest
     forecast LFAS Quantity published under clause 7B.3.16(b); and
  - ii. if only part of the capacity in the lowest priced, or next lowest priced, LFAS Downwards Price-Quantity Pair is required to

make up the latest forecast LFAS Quantity published under clause 7B.3.16(b), that LFAS Downwards Price-Quantity Pair is selected for that part of its capacity only;

- (d) provide to System Management the details of:
  - the LFAS Facility or Facilities determined under clause
     7B.3.5(b) and the associated LFAS Facility quantities and the associated Trading Interval; and
  - ii. the LFAS Facility or Downward LFAS Facilities determined under clause 7B.3.5(c) and the associated LFAS Facility quantities and the associated Trading Interval; and
- (e) each time the IMO creates an LFAS Merit Order, to the extent the IMO is reasonably able, publish it and the highest price selected under each of clauses 7B.3.5(b) and (c) for each Trading Interval in the LFAS Horizon for which the LFAS Merit Order relates, as soon as reasonably practicable after the determination, but no later than 15 minutes after the LFAS Gate Closure for which the LFAS Merit Order relates.

#### 7B.3.5A. The IMO must, to the extent it is reasonably able:

- (a) provide the information referred to in clause 7B.3.5(d) within 15 minutes of the LFAS Gate Closure to which the information relates; and
- (b) notify the Market Participant with the LFAS Facility or Facilities selected under clauses 7B.3.5(b) and 7B.3.5(c) of that selection and the associated LFAS Facility quantities to be provided by Trading Interval, within 15 minutes of the LFAS Gate Closure for that Trading Interval.
- 7B.3.6. Where a selection under clauses 7B.3.5(b) or (c) requires an LFAS Facility to provide a quantity of LFAS less than the Minimum LFAS Quantity, the IMO may select the lowest priced LFAS Price-Quantity Pair that, subject to any restrictions under clause 7B.1.2(c), is able to provide a quantity of LFAS equal to the Minimum LFAS Quantity.
- 7B.3.7. Subject to clauses 7B.3.8, 7B.3.9 and 7B.4.1, System Management must use the LFAS Facilities referred to in clause 7B.3.5(d) for meeting LFAS requirements in the associated Trading Interval and those LFAS Facilities must provide those LFAS requirements.
- 7B.3.8. Where the IMO is unable to publish an LFAS Merit Order for a Trading Interval in accordance with clause 7B.3.5(d), System Management must use the Facilities in the Verve Energy Balancing Portfolio to provide LFAS for that Trading Interval.
- 7B.3.9. System Management may select and use LFAS Facilities other than in accordance with the LFAS Merit Order where System Management considers, on reasonable

grounds, that it needs to do so in order to operate the SWIS in a reliable and safe manner.

### **LFAS Price**

- 7B.3.10. The IMO must, at the time it makes the selection under clause 7B.3.5(b), determine the Upwards LFAS Price for a Trading Interval as the highest price in those LFAS Upwards Price-Quantity Pairs.
- 7B.3.11. The IMO must, at the time it makes the selection under clause 7B.3.5(c), determine the Downwards LFAS Price for a Trading Interval as the highest price in those LFAS Downward Price-Quantity Pairs.
- 7B.3.12. The IMO must, by the end of a Trading Day, publish the LFAS Price for each Trading Interval for that Trading Day.
- 7B.3.13. If the IMO is unable to determine an LFAS Price under clause 7B.3.10 or clause 7B.3.11 in time to publish it in accordance with clause 7B.3.12, the IMO is to determine the LFAS Price as follows:
  - (a) if the IMO is determining an LFAS Price for a Trading Interval in a Business Day, the LFAS Price will be the value for the equivalent Trading Interval in the most recent Trading Day in the past which is also a Business Day; or
  - (b) if the IMO is determining an LFAS Price for a Trading Interval in a day which is not a Business Day, the LFAS Price will be the value for the equivalent Trading Interval in the most recent Trading Day in the past which is also not a Business Day.
- 7B.3.14. Once the IMO has published an LFAS Price under clause 7B.3.12 it cannot be altered by:
  - (a) disagreement under clause 9.20.6; or
  - (b) disputes under clause 9.21.1.

#### **Forecast LFAS Merit Order**

- 7B.3.15. The IMO must, for each future Trading Interval in the Balancing Horizon for which LFAS Gate Closure has not occurred determine a forecast LFAS Merit Order.
- 7B.3.16. Where the IMO determines the forecast LFAS Merit Order under clause 7B.3.15, the IMO must, to the extent it is reasonably able, within a Trading Interval, publish on the Market Web Site to each Market Participant and to System Management:

- (a) the LFAS Quantities expected to be provided by that Market Participant for a Trading Interval in the Balancing Horizon as indicated by the forecast LFAS Merit Order;
- (b) any quantities provided to the IMO by System Management under clause 7B.1.4 and clause 7B.1.5; and
- (c) a forecast LFAS Price based upon the forecast LFAS Merit Order.

## 7B.4 Verve Energy Back Up LFAS Provider

### 7B.4.1. Where:

- (a) an LFAS Facility has failed to provide all of part of the LFAS when called upon to do so by System Management in accordance with clause 7B.3.7 or clause 7B.3.9; or
- (b) the quantity of LFAS in a Trading Interval is greater than the most recent LFAS Quantity published under clause 7B.3.16(b) for that Trading Interval,

System Management may use the Verve Energy Balancing Portfolio to provide the LFAS Quantity Balance and/or the Increased LFAS Quantity, as applicable.

7B.4.2. Where System Management has used the Verve Energy Balancing Portfolio to provide LFAS under clause 7B.3.8 or clause 7B.4.1 in a Trading Interval, it must, as soon as reasonably practicable, advise the IMO of the quantity, in MW, of LFAS which was provided by the Verve Energy Balancing Portfolio in the Trading Interval.

- 9.3.3. The IMO must determine the Metered Schedule for each of the following Facilities

  Facility types for each Trading Interval in accordance with clause 9.3.4:
  - (a) Non-Dispatchable Loads;
  - (b) Interruptible Loads;
  - (c) Dispatchable Loads;
  - (d) Scheduled Generators; and
  - (e) Non-Scheduled Generators.
- 9.3.4. Subject to clause 2.30B.10, the Metered Schedule for a Trading Interval for each of the following Facilities:
  - (a) Non-Dispatchable Loads, excluding those Non-Dispatchable Loads referred to in clause 9.3.4A;
  - (b) Interruptible Loads;
  - (c) Dispatchable Loads;
  - (d) Scheduled Generators; and
  - (e) Non-Scheduled Generators,

is the net quantity of energy generated and sent out into the relevant Network or consumed by the Facility during that Trading Interval, Loss Factor adjusted to the Reference Node, and determined from Meter Data Submissions received by the IMO in accordance with clause 8.4 or SCADA data received from System Management in accordance with clause 7.13.1(cA) where interval meter data is not available.

- 9.3.4A. The IMO must determine a single Metered Schedule for a Trading Interval for those Non-Dispatchable Loads without interval meters or with meters not read as interval meters that are served by <a href="mailto:the-Electricity Retail CorporationSynergy">the Electricity Retail CorporationSynergy</a> where:
  - (a) the Metered Schedule equals the Notional Wholesale Meter value for that Trading Interval;
  - (b) the Notional Wholesale Meter value for a Trading Interval equals negative one multiplied by:
    - the sum of the Metered Schedules with positive quantities for that Trading Interval; plus
    - ii. the sum of the Metered Schedules with negative quantities for that Trading Interval;

where the Metered Schedules referred to in (i) and (ii) exclude the Metered Schedule for the Notional Wholesale Meter.

- 9.3.5 For the purpose of clauses 9.3.4 and 9.3.4A, a quantity of energy generated and sent out into the relevant Network has a positive value and a quantity of energy consumed has a negative value.
- 9.7.1. The Reserve Capacity settlement amount for Market Participant p for Trading Month m is:

```
\begin{split} RCSA(p,m) = & Monthly \ Reserve \ Capacity \ Price(m) \times (CC_NSPA(p,m) \\ & - Sum(q \in P,CC_ANSPA(p,q,m))) \\ & + Sum(a \in A, \ Monthly \ Special \ Price(p,m,a) \times (CC_SPA(p,m,a) \\ & - Sum(q \in P,CC_ASPA(p,q,m,a)))) \\ & - Capacity \ Cost \ Refund(p,m) \\ & - Intermittent \ Load \ Refund(p,m) \\ & + Supplementary \ Capacity \ Payment(p,m) \\ & - Targeted \ Reserve \ Capacity \ Cost(m) \times Shortfall \ Share(p,m) \\ & - Shared \ Reserve \ Capacity \ Cost(m) \times Capacity \ Share(p,m) \\ & + \frac{Capacity \ LF(m)LF \ Capacity \ Cost(m) \times Capacity \ Share(p,m) \\ & + \frac{Capacity \ LF(m)LF \ Capacity \ Cost(m) \times Capacity \ Share(p,m) \\ \end{split}
```

#### Where:

```
\begin{split} \text{Shortfall Share}(p,m) = \\ 0, \text{ if Sum}(n \in P, (IRCR(n,m) - Sum(q \in P, CC\_ANSPA(q,n,m) \\ &\quad + Sum(a \in A, CC\_ASPA(q,n,m,a))))) = 0 \\ \text{otherwise}, \\ (IRCR(p,m) - Sum(q \in P, CC\_ANSPA(q,p,m) \\ &\quad + Sum(a \in A, CC\_ASPA(q,p,m,a)))) \ / \\ Sum(n \in P, (IRCR(n,m) - Sum(q, CC\_ANSPA(q,n,m) \\ &\quad + Sum(a \in A, CC\_ASPA(q,n,m,a))))) \end{split}
```

Capacity Share(p,m) =  $IRCR(p,m) / Sum(n \in P, IRCR(n,m))$ 

Monthly Reserve Capacity Price(m) is the Monthly Reserve Capacity Price which applies for Trading Day d defined in accordance with clause 4.29.1;

CC\_NSPA(p,m) is the number of Capacity Credits held by Market Participant p in Trading Month m that are not covered by Special Price Arrangements;

CC\_ANSPA(p,q,m) is the number of Capacity Credits held by Market Participant p in Trading Month m that are not covered by Special Price Arrangements and which are allocated to another Market Participant q for Trading Month m under clauses 9.4 and 9.5;

A is the set of all Special Price Arrangements associated with a Facility where "a" is used to refer to a member of that set;

P is the set of all Market Participants, where "p", "n", and "q" are all used to refer to a member of that set;

Monthly Special Price(p,m,a) is the Monthly Special Reserve Capacity Price for Special Price Arrangement for Market Participant p defined in accordance with clause 4.29.2 which applies for Trading Day d;

CC\_SPA(p,m,a) is the number of Capacity Credits held by Market Participant p in Trading Month m that are covered by Special Price Arrangement a;

CC\_ASPA(p,q,m,a) is the number of Capacity Credits held by Market Participant p in Trading Month m that are covered by Special Price Arrangement a and which are allocated to Market Participant q for Trading Month m under clauses 9.4 and 9.5;

IRCR(p,m) is the Individual Reserve Capacity Requirement for Market Participant p and Trading Month m expressed in units of MW;

Capacity Cost Refund(p,m) is the Capacity Cost Refund payable to the IMO by Market Participant p in respect of that Market Participant's Capacity Credits for Trading Month m, as specified in clause 4.29.3(d)(vi);

Intermittent Load Refund(p,m) is the sum over all of Market Participant p's Intermittent Loads of the Intermittent Load Refund payable to the IMO by Market Participant p in respect of each of its Intermittent Loads for Trading Month m, as specified in clause 4.28A.1;

Supplementary Capacity Payment(p,m) is the net payment to be made by IMO under a Supplementary Capacity Contract to Market Participant p for Trading Month m, as specified by the IMO in accordance with clause 4.29.3(e)(i);

Targeted Reserve Capacity Cost(m) is the cost of Reserve Capacity to be shared amongst those Market Customers who have not had sufficient Capacity Credits allocated to them for Trading Month m where this cost is specified for Trading Month m under clause 4.29.3(b);

Shared Reserve Capacity Cost(m) is the cost of Reserve Capacity to be shared amongst all Market Customers for Trading Month m where this cost is specified for Trading Month m under clause 4.29.3(c);

<u>LF\_Capacity\_Cost(m)Capacity\_LF(m)</u> is the total Load Following <u>sS</u>ervice capacity payment cost for Trading Month m as specified <u>by IMO under in</u> clause <u>3.22.1(a) 9.9.2(q).</u>

## 9.8 The Balancing Settlement Calculations for a Trading Day

9.8.1 The balancing settlement amount for Market Participant p for Trading Interval t of Trading Day d is:

```
\begin{aligned} & \text{BSA}(p,d,t) = \text{MCAP}(d,t) \times \text{ADQ}(p,d,t) + \text{UDAP}(d,t) \times \text{UUDQ}(p,d,t) \\ & + \text{DDAP}(d,t) \times \text{DUDQ}(p,d,t) + \text{DIP}(p,d,t) \\ & \times \text{MBQ}(p,d,t) + \text{CONC}(p,d,t) + \text{COFFC}(p,d,t) + \text{DIP}(p,d,t). \end{aligned}
```

Where:

MBQ(p,d,t) is the Metered Balancing Quantity for Market Participant p for Trading Interval t of Trading Day d calculated in accordance with clause 6.17.2;

Balancing Price (d,t) is the Balancing Price for Trading Interval t of Trading Day d calculated in accordance with clause 7A.3.9;

CONC(p,d,t) is the Constrained On Compensation for a Trading Interval for Market Participant p for Trading Interval t of Trading Day d. For a participant other than Verve Energy, CONC(p,d,t) is the sum of all ConGN x ConPN for each of the Market Participant's Scheduled Generation Facilities and Non-Scheduled Generation Facilities for that Trading Interval. For Verve Energy, CONC(p,d,t) is the sum of all PConGN x PConPN plus the sum of all ConGN x ConPN for each VSAF.

COFFC(p,d,t) is the Constrained Off Compensation for a Trading Interval for Market Participant p for Trading Interval t of Trading Day d. For a participant other than Verve Energy, COFFC(p,d,t) is the sum of all CoffGN x CoffPN for each of the Market Participant's Scheduled Generation Facilities Non-Scheduled Generation Facilities for that Trading Interval. For Verve Energy, COFFC(p,d,t) is the sum of all PCoffGN x PCoffPN plus the sum of all CoffGN x CoffPN for each VSAF.

DIP(d,t) is Non-Balancing Facility Dispatch Instruction Payment for Market Participant p for Trading Interval t of Trading Day d calculated in accordance with clause 6.17.6.

ADQ(p,d,t), is the Authorised Deviation Quantity for Market Participant p for Trading Interval t of Trading Day d calculated in accordance with clause 6.17.2:

UUDQ(p,d,t) is the Upward Unauthorised Deviation Quantity for Market Participant p for Trading Interval t of Trading Day d calculated in accordance with clause 6.17.3;

DUDQ(p,d,t) is the Downward Unauthorised Deviation Quantity, for Market Participant p for Trading Interval t of Trading Day d calculated in accordance with clause 6.17.4;

MCAP(d,t) is the Marginal Cost Administered Price for Trading Interval t of Trading Day d calculated in accordance with clause 6.14.2;

UDAP(d,t) is the Upward Deviation Administered Price for Trading Interval t of Trading Day d calculated in accordance with clause 6.14.5;

DDAP(d,t) is the Downward Deviation Administered Price for Trading Interval t of Trading Day d calculated in accordance with clause 6.14.6;

DIP(d,t) is the Dispatch Instruction Payment for Market Participant p for Trading Interval t of Trading Day d calculated in accordance with clause 6.17.6.

## 9.9 The Ancillary Service Settlement Calculations for a Trading Month

9.9.1. The Ancillary Service settlement amount for Market Participant p for Trading Month m is:

```
ASSA(p,m) = Electricity Generation Corporation AS Provider Payment(p,m)
+ ASP_Payment(p,m)
- Load_Following_Share(p,m)
* (Capacity_LF(m) + Availability_Cost_LF(m))
- Reserve_Cost_Share(p,m)
- Consumption_Share(p,m) * Cost_LRD(m)

ASSA(p,m) = Verve Energy AS Provider Payment(p,m)
+ ASP_Payment(p,m)
```

+ LF\_Market\_Payment(p,m)

- LF Capacity Cost Share(p,m)

- LF\_Market\_Cost\_Share(p,m)

- SR\_Availability\_Cost\_Share(p,m)

- Consumption\_Share(p,m) x Cost\_LRD(m)

#### Where

```
the Electricity Generation Corporation AS Provider Payment(p,m) =

— 0 if Market Participant p is not the Electricity Generation Corporation and

— (Availability_Cost_R(m) + Availability_Cost_LF(m) + Cost_LRD(m))

— - ASP_Balance_Payment(m) otherwise;

the Verve Energy AS Provider Payment(p,m) =

— 0 if Market Participant p is not Verve Energy and

— (SR_Availability_Payment(m) + Cost_LRD(m)

— - ASP_Balance_Payment(m)) otherwise;
```

SR\_Availability\_Payment(m) is defined in clause 9.9.2(g);

ASP\_Payment(p,m) is the total payment to Market Participant p for Contracted Ancillary Services in Trading Month m, determined in accordance with clause 9.9.3;

ASP\_Balance\_Payment(m) is the amount determined in accordance with clause 9.9.3A for Trading Month m;

Load\_Following\_Share(p,m) is the share of the Cost\_LF(m) allocated to Market Participant p in Trading Month m, where this is to be determined by the IMO using the methodology described in clause 3.14.1;

LF\_Market\_Payment(p,m) is defined in clause 9.9.2(d);

LF\_Capacity\_Cost\_Share(p,m) is defined in clause 9.9.2(p);

LF\_Market\_Cost\_Share(p,m) is defined in clause 9.9.2(n);

SR\_Availability\_Cost\_Share(p,m) is defined in clause 9.9.2(k);

Reserve\_Cost\_Share(p,m) is defined in clause 9.9.2(b);

Consumption\_Share(p,m) is the proportion of consumption associated with Market Participant p for Trading Month m determined by the IMO in accordance with clause 9.3.7; and

Capacity\_LF(m) is the total Load Following Service capacity payment cost for Trading Month m as specified by the IMO under clause 3.22.1(a);

Availability\_Cost\_R(m) is the total Spinning Reserve Service availability payment cost, excluding Load Following costs, for Trading Month m, as calculated under clause 9.9.2(c);

Availability\_Cost\_LF(m) is the total Load Following Service availability payment cost for Trading Month m, as calculated under clause 9.9.2(d); and

Cost\_LRD(m) is the total Load Rejection Reserve Service, System Restart Service and Dispatch Support Service payment cost for Trading Month m as specified by the IMO under clause 3.22.1(g).

- 9.9.2 The following terms relate to <u>Ancillary Service availability Load Following Service</u> and <u>Spinning Reserve Service</u> costs in <u>Trading Month m</u>:
  - (a) the total availability cost for Trading Month m:

```
 \begin{array}{l} \text{Availability\_Cost(m) =} \\ 0.5 \times (\text{Margin\_Peak(m)} \times \text{Sum(t} \in \text{Peak,MCAP(t)} \\ \times (\text{Capacity\_R\_Peak(m)} - \text{Sum(c} \in \text{CAS\_SR,ASP\_SRQ(c,t)))))} \\ + 0.5 \times (\text{Margin\_Off-Peak(m)} \times \text{Sum(t} \in \text{Off-Peak,MCAP(t)} \\ \times (\text{Capacity\_R\_Off-Peak(m)} - \text{Sum(c} \in \text{CAS\_SR,ASP\_SRQ(c,t)))))} \\ + \text{Sum(c} \in \text{CAS\_SR,ASP\_SRPayment(c,m))} \\ + \text{Sum(c} \in \text{CAS\_LF,ASP\_LFPayment(c,m))} \end{array}
```

(b) the Spinning Reserve cost share for Market Participant p, which is a Market Generator, for Trading Month m:

```
\begin{split} & \text{Reserve\_Cost\_Share(p,m) =} \\ & 0.5 \times (\text{Margin\_Peak(m)} \times \text{Sum(t} \in \text{Peak,MCAP(t)} \\ & \times \text{Reserve\_Share(p,t)} \\ & \times (\text{Capacity\_R\_Peak(m)} - \text{Sum(c} \in \text{CAS\_SR,ASP\_SRQ(c,t)} - 0.5 \times \\ & \text{LFR(m))))} \\ & + 0.5 \times (\text{Margin\_Off-Peak(m)} \times \text{Sum(t} \in \text{Off-Peak,MCAP(t)} \\ & \times \text{Reserve\_Share(p,t)} \\ & \times (\text{Capacity\_R\_Off-Peak(m)} - \text{Sum(c} \in \text{CAS\_SR,ASP\_SRQ(c,t))} - \\ & 0.5 \times \text{LFR(m))))} \\ & + \text{Sum(t} \in \text{T, Reserve\_Share(p,t)} \\ & \times \text{Sum(c} \in \text{CAS\_SR,ASP\_SRPayment(c,m)} / \text{TITM))} \end{split}
```

(c) the total Spinning Reserve availability cost for Trading Month m:

```
Availability_Cost_R(m) =
Sum(p∈P, Reserve_Cost_Share(p,m))
```

(d) the total Load Following availability cost for Trading Month m:

Availability\_Cost\_LF(m) =

Availability\_Cost(m) - Availability\_Cost\_R(m)

(a) the payment to Market Participant p for LFAS Upwards Service in Trading Interval t:

LF\_Up\_Market\_Payment(p,t) =

 $LF_{Up(p,t)} \times LF_{Up}$  Price(t)

+ LF\_Up\_Backup(p,t) × LF\_Up\_Backup\_Price(p,t)

(b) the payment to Market Participant p for LFAS Downwards Service in Trading Interval t:

LF\_Down\_Market\_Payment(p,t) =

 $LF_Down(p,t) \times LF_Down_Price(t)$ 

+ LF\_Down\_Backup(p,t) × LF\_Down\_Backup\_Price(p,t)

(c) the total payment to Market Participant p for Load Following Service in Trading Interval t:

LF Market Payment(p,t) =

LF\_Up\_Market\_Payment(p,t) + LF\_Down\_Market\_Payment(p,t)

(d) the total payment to Market Participant p for Load Following Service in Trading Month m:

LF\_Market\_Payment(p,m) =

Sum(t∈T, LF \_Market\_Payment(p,t))

(e) the total payment to all Market Participants for Load Following Service in Trading Interval t:

LF\_Market\_Payment(t) =

 $Sum(p \in P, LF\_Market\_Payment(p,t))$ 

(f) the total payment to all Market Participants for Spinning Reserve Service in Trading Interval t:

SR\_Availability\_Payment(t) =

 $0.5 \times Margin(t) \times Balancing_Price(t)$ 

x max(0,SR\_Capacity(t) - LF\_Up\_Capacity(t)

-  $Sum(c \in CAS SR, ASP SRQ(c,t))$ 

+ Sum(c∈CAS\_SR,ASP\_SRPayment(c,m) / TITM)

(g) the total payment to Market Participants for Spinning Reserve Service in Trading Month m:

SR\_Availability\_Payment(m) =

Sum(t∈T, SR\_Availability\_Payment(t))

(h) the assumed total cost of Spinning Reserve Service if no Spinning Reserve

was provided by Load Following plant and without the Ancillary Service

cost saving, in Trading Interval t:

```
SR_NoLF_Cost(t) =
              0.5 \times Margin(t) \times Balancing Price(t)
              \times max(0,SR_Capacity(t) - Sum(c \in CAS_SR,ASP_SRQ(c,t)))
              + Sum(c∈CAS SR,ASP SRPayment(c,m) / TITM)
      the Ancillary Service cost saving, derived through the dual use of plant to
       simultaneously provide Spinning Reserve Service and Load Following
       <u>Service in Trading Interval t in Trading Month m:</u>
       AS_Cost_Saving(t) =
              0.5 \times Margin(t) \times Balancing_Price(t)
              x min(LF_Up_Capacity(t),
              SR\_Capacity(t) - Sum(c \in CAS\_SR, ASP\_SRQ(c,t)))
      the allocation factor for the Ancillary Service cost saving in Trading Interval
       AS Saving Factor(t) =
              LF_Market_Payment(t) /
              (LF_Market_Payment(t) + SR_NoLF_cost(t))
(k)
      LF_Up_Capacity(t) is the capacity necessary to cover the requirement for
       LFAS Upwards Service for Trading Interval t:
       LF Up Capacity(t) =
              Ex-post_Upwards_LFAS_Enablement (t) +
              Upwards LFAS Backup Enablement(t)
      the Spinning Reserve availability cost share for Market Participant p, which
(I)
       is a Market Generator, for Trading Month m:
       SR Availability Cost Share(p,m) =
              0.5 x (Margin(t) x Sum (t ∈ T, Balancing_Price(t)
              x SR Share(p,t)
              x max(0, SR_Capacity(t) - LF_Up_Capacity(t)
              - Sum(c∈CAS_SR,ASP_SRQ(c,t))))
              + Sum(t∈T, SR_Share(p,t)
              x Sum(c∈CAS_SR, ASP_SRPayment(c,m) / TITM)
              + Sum(t∈T, SR_Share(p,t)
              + (AS Saving Factor(t) × AS Cost Saving(t))
       SR_Availability_Cost_Share(p,m) =
              Sum(t \in T, SR\_Share(p,t) \times
              ((0.5 \times Margin(t) \times Balancing\_Price(t))
              x max(0, SR_Capacity(t) - LF_Up_Capacity(t)
              -Sum(c \in CAS\_SR,ASP\_SRQ(c,t)))
              + Sum(c∈CAS_SR, ASP_SRPayment(c,m) / TITM)
              + (AS_Saving_Factor(t) × AS_Cost_Saving(t))))
(m) the total Spinning Reserve availability cost for Trading Month m:
```

```
\frac{SR\_Availability\_Cost(m) =}{Sum(p \in P, SR\_Availability\_Cost\_Share(p,m))}
```

(n) the Load Following market cost share for Market Participant p for Trading Month m:

```
LF Market Cost Share(p,m) =

Sum(t∈T, LF Share(p,m)

x (LF Market Payment(t)

- AS Saving Factor(t) x AS Cost Saving(t)))
```

(o) the total Load Following market cost for Trading Month m:

```
<u>LF_Market_Cost(m) =</u>
<u>Sum(p∈P, LF_Market_Cost_Share(p,m))</u>
```

(p) the Load Following capacity cost share for Market Participant p for Trading Month m:

```
<u>LF_Capacity_Cost_Share(p,m) =</u>
<a href="mailto:(Monthly_Reserve_Capacity_Price(m) / TITM">(Monthly_Reserve_Capacity_Price(m) / TITM</a>)
<a href="mailto:xSum(t∈T, LF_Share(p,m) × LF_Up_Capacity(t)">xSum(t∈T, LF_Share(p,m) × LF_Up_Capacity(t))</a>
```

(q) the total Load Following capacity cost for Trading Month m:

```
<u>LF Capacity Cost(m) =</u>
<u>Sum(p∈P, LF Capacity Cost Share(p,m))</u>
```

#### Where

t denotes a Trading Interval in Trading Month m;

T is the set of Trading Intervals in Trading Month m;

<u>LF\_Up(p,t)</u> is the sum of any Ex-post <u>Upwards LFAS Enablement</u> <u>quantities provided under clause 7.13.1(e)</u> for <u>LFAS Facilities registered to Market Participant p in Trading Interval t;</u>

LF\_Up\_Price(t) is the Upwards LFAS Price for Trading Interval t;

LF Up Backup(p,t) is the Upwards LFAS Backup Enablement for Trading Interval t if Market Participant p is Verve Energy and 0 otherwise;

<u>LF\_Up\_Backup\_Price(p,t)</u> is the Backup Upwards LFAS Price for Trading Interval t if Market Participant p is Verve Energy and 0 otherwise;

<u>LF\_Down(p,t)</u> is the sum of any Ex-post Downwards LFAS Enablement quantities provided under clause 7.13.1(e) for LFAS Facilities registered to Market Participant p in Trading Interval t;

LF\_Down\_Price(t) is the Downwards LFAS Price for Trading Interval t;

<u>LF\_Down\_Backup(p,t) is the Downwards LFAS Backup Enablement for Trading Interval t if Market Participant p is Verve Energy and 0 otherwise;</u>

<u>LF\_Down\_Backup\_Price(p,t) is the Backup Downwards LFAS Price for Trading Interval t if Market Participant p is Verve Energy and 0 otherwise:</u>

### Balancing\_Price(t) is the Balancing Price for Trading Interval t;

c denotes a Contracted Ancillary Service;

CAS\_SR is the set of Contracted Spinning Reserve Services;

# CAS\_LF is the set of Contracted Load Following Services;

P is the set of all Market Participants;

ASP\_SRQ(c,t) is the quantity provided by System Management in accordance with clause 3.22.3(b)(ii) for Contracted Spinning Reserve Service c in Trading Interval t multiplied by 2, in to convert to units of MW;

ASP\_SRPayment(c,m) is defined in clause 9.9.4;

### ASP\_LFPayment(c,m) is defined in clause 9.9.4;

TITM is the number of Trading Intervals in Trading Month m (excluding any Trading Intervals prior to Energy Market Commencement);

Reserve\_Share(p,t)SR\_Share(p,t) is the share of the Spinning Reserve Service payment costs allocated to Market Participant p in Trading Interval t, where this is to be determined by the IMO using the methodology described in clause 3.14.2;

LF\_Share(p,m) is the share of the Load Following Service costs allocated to Market Participant p in Trading Month m, where this is to be determined by the IMO using the methodology described in clause 3.14.1;

Margin(t) is Margin\_Peak(m), if Trading Interval t is a Peak Trading Interval and Margin\_Off-Peak(m), if Trading Interval t is a Off-Peak Trading Interval;

Margin\_Peak(m) is the reserve availability payment margin applying for Peak Trading Intervals for Trading Month m as specified by the IMO under clause 3.22.1(c);

Margin\_Off-Peak(m)is the reserve availability payment margin applying for Off-Peak Trading Intervals for Trading Month m as specified by the IMO under clause 3.22.1(d);

SR\_Capacity(t) is SR\_Capacity\_Peak(m), if Trading Interval t is a Peak

Trading Interval; and SR\_Capacity\_Off-Peak(m) if Trading Interval t is an

Off-Peak Trading Interval;

SR Capacity Peak(m), Capacity R Peak(m) is the capacity necessary to cover the Ancillary Services Requirement for Spinning Reserve for Peak Trading Intervals for Trading Month m as specified by the IMO under clause 3.22.1(e);

SR Capacity Off-Peak(m), Capacity\_R\_Off-Peak(m) is the capacity necessary to cover the Ancillary Services Requirement for Spinning Reserve for Off-Peak Trading Intervals for Trading Month m as specified by the IMO under clause 3.22.1(f);

LFR(m) is the capacity necessary to cover the Ancillary Services Requirement for Load Following for Trading Month m as specified by the IMO under clause 3.22.1(fA);

<u>Ex-post\_Upwards\_LFAS\_Enablement(t)</u> is the sum of the quantities provided under clause 7.13.1(e) for Trading Interval t; and

<u>Upwards LFAS Backup Enablement(t) is any quantity provided under clause 7.13.1(eA) for Trading Interval t.</u>

MCAP(t) is the greater of zero and the Marginal Cost Administered Price for Trading Interval t calculated in accordance with clause 6.14.2;

Peak is the set of Peak Trading Intervals in Trading Month m; and

Off-Peak is the set of Off-Peak Trading Intervals in Trading Month m.

- 9.9.3. The value of ASP\_Payment(i,m) for Rule Participant i in Trading Month m is the sum of:
  - (a) the sum over all Contracted Spinning Reserve Services c provided by Rule Participant i of ASP\_SRPayment(c,m);
  - (b) [Blank]the sum over all Contracted Load Following Services c provided by Rule Participant i of ASP\_LFPayment(c,m);
  - (c) the sum over all Contracted Load Rejection Reserve Services c provided by Rule Participant i of ASP\_LRPayment(c,m);
  - (d) the sum over all Contracted System Restart Services c provided by Rule Participant i of ASP\_BSPayment(c,m); and
  - (e) the sum over all Contracted Dispatch Support Services c provided by Rule Participant i of ASP\_DSPayment(c,m),

where each of the terms ASP\_SRPayment(c,m), ASP\_LFPayment(c,m), ASP\_LRPayment(c,m), ASP\_BSPayment(c,m) and ASP\_DSPayment(c,m) is determined in accordance with clause 9.9.4.

9.9.3A. The value of ASP Balance Payment(m) for Trading Month m is:

```
\begin{split} ASP\_Balance\_Payment(m) = \\ Sum(c \in CAS\_SR, ASP\_SRPayment(c,m)) + \\ \frac{Sum(c \in CAS\_LF, ASP\_LFPayment(c,m)) +}{Min(Cost\_LR(m), Sum(c \in CAS\_LR, ASP\_LRPayment(c,m))} \\ + Sum(c \in CAS\_BS, ASP\_BSPayment(c,m)), + \\ Sum(c \in CAS\_DS, ASP\_DSPayment(c,m)) \end{split}
```

#### ₩here

c denotes a Contracted Ancillary Service;

CAS\_SR is the set of Contracted Spinning Reserve Services;

CAS\_LF is the set of Contracted Load Following Services;

CAS\_LR is the set of Contracted Load Rejection Reserve Services;

CAS\_BS is the set of Contracted System Restart Services;

CAS\_DS is the set of Contracted Dispatch Support Services;

Cost\_LR(m) is the amount specified by the IMO for Trading Month m under clause 3.22.1(g)(i) for Load Rejection Reserve Service and System Restart Service, and Dispatch Support Services except those provided through clause 3.11.8B<sub>7</sub>; and

each of the terms ASP\_SRPayment(c,m), ASP\_LFPayment(c,m), ASP\_LRPayment(c,m), ASP\_BSPayment(c,m) and ASP\_DSPayment(c,m) is determined in accordance with clause 9.9.4.

9.9.3B. The value of Cost\_LR\_Shortfall(m) for Trading Month m is:

```
\begin{aligned} Cost\_LR\_Shortfall(m) &= \\ &Max(0, Sum(c \in CAS\_LR, ASP\_LRPayment(c,m)) \\ &+ Sum(c \in CAS\_BS, ASP\_BSPayment(c,m)) \\ &- Cost\_LR(m)) \end{aligned}
```

#### Wwhere

c denotes a Contracted Ancillary Service;

CAS\_LR is the set of Contracted Load Rejection Reserve Services;

CAS\_BS is the set of Contracted System Restart Services;

Cost\_LR(m) is the amount specified by the IMO for Trading Month m under clause 3.22.1(g)(i) for Load Rejection Reserve Service and System Restart Service, and Dispatch Support Services except those provided through clause 3.11.8B<sub>7</sub>; and

each of the terms ASP\_LRPayment(c,m) and ASP\_BSPayment(c,m) is determined in accordance with clause 9.9.4.

- 9.9.4. For each Contracted Ancillary Service c, the payment ASP\_SRPayment(c,m) for Spinning Reserve Service, ASP\_LFPayment(c,m) for Load Following Service, ASP\_LRPayment(c,m) for Load Rejection Reserve Service, ASP\_BSPayment(c,m) for System Restart Service or ASP\_DSPayment(c,m) for Dispatch Support Service, as applicable, for Trading Month m is:
  - (a) the applicable monthly dollar value specified by System Management for that Trading Month in accordance with clause 3.22.3(b)(iii)(1); or
  - (b) where no value is specified under clause 9.9.4(a), the product of the applicable price specified in clause 3.22.3(b)(iii)(2) for that Trading Month and the sum over Trading Intervals in that Trading Month of the applicable quantities specified in clause 3.22.3(b)(ii).
- 9.10.1. The Commitment and Outage Compensation settlement amount for Market Participant p for Trading Month m is:

```
COCSA(p,m) = \frac{(Com\_Compensation(p,m) + Out\_Compensation(p,m))}{(Consumption\_Share(p,m) \times Out\_Compensation(q,m))}
```

Where

Com\_Compensation(x,m) is the sum over all Trading Days in the Trading Month of the Commitment Compensation calculated for Market Participant x (denoted by either p or q) under clause 6.18.1 of the Trading Month;

Out\_Compensation(x,m) is the Outage Compensation specified for Market Participant x (denoted by either p or q) for the Trading Month under clause 3.22(1)(h); and

Consumption\_Share(p,m) is the proportion of consumption associated with Market Participant p for Trading Month m determined by the IMO in accordance with clause 9.3.7.

9.10A.1. The Non-Compliance Charge settlement amount for Market Participant p for Trading Month m is:

If Market Participant p is the Electricity Generation Corporation

$$NCC(p,m) = -Sum(t \in T, CP(t) \times ABS[NCQ(p,t)])$$

**Otherwise** 

NCC(p,m) = 0

Where

T is the set of all Trading Intervals in Trading Month m, where "t" refers to a member of that set;

CP(t) is the non-compliance cost applicable in Trading Interval t as specified in clause 9.10A.2;

NCQ(p,t) is the MWh quantity of non-compliance for Market Participant p for Trading Interval t as specified by System Management in accordance with clause 7.13.1A(a); and

ABS[NCQ(p,t)] means the mathematical absolute value of NCQ(p,t).

- 9.10A.2. The value of the non-compliance cost is to equal the Alternative Maximum STEM Price.
- 9.11.1. The Reconciliation Settlement amount for Market Participant p for Trading Month m is:

```
RSA(p,m) = (-1) \times Consumption\_Share(p,m) \times \\ (Sum(q \in P, d \in D, t \in T, BSA(q,d,t)) \\ + \frac{Sum(q \in P, NCC(q,m))}{+ Cost\_LR\_Shortfall(m))}
```

Where

Consumption\_Share(p,m) is the proportion of consumption associated with Market Participant p for Trading Month m determined by the IMO in accordance with clause 9.3.7;

BSA(q,d,t) is the Balancing Settlement Amount for Market Participant q for Trading Day d and Trading Interval t;

NCC(q,m) is the Non-Compliance Charge settlement amount for Market Participant q for Trading Month m;

Cost\_LR\_Shortfall(m) is determined in accordance with clause 9.9.3B;

P is the set of all Market Participants, where "p" and "q" are both used to refer to a member of that set;

D is the set of all Trading Days in Trading Month m, where "d" is used to refer to a member of that set; and

T is the set of all Trading Intervals in Trading Day d, where "t" refers to a member of that set.

- 9.18.3 A Non-STEM Settlement Statement must contain the following information:
  - (a) details of the Trading Days covered by the Non-STEM Settlement Statement;
  - (b) the identity of the Market Participant to which the Non-STEM Settlement Statement relates;
  - (c) for each Trading Interval of each Trading Day:
    - i. the Bilateral Contract quantities for each that Market Participant;
    - ii. the Net Contract Position of the Market Participant;
    - ii(A). the MWh quantity of energy scheduled from each of the Market Participants Facilities;
    - iii. the energy scheduled to be provided in accordance with a Resource Plan issued by, or applicable to, that Market Participant provided under clause 6.5;
    - iv. the Maximum Theoretical Energy Schedule and the Minimum

      Theoretical Energy Schedule Dispatch Schedule data for each of the Market Participant's Registered Facilities;
    - v. the meter reading for each Registered Facility associated with the Market Participant and to which paragraph (vii) is not applicable;
    - vi. in the case of the Electricity Generation Corporation Verve Energy, the total quantity of energy deemed to have been supplied by the Electricity Generation Corporation Verve Energy's Registered Facilities;
    - vii. in the case of the Electricity Retail Corporation Synergy, Notional Wholesale Meter values:

- viii. the values of the Balancing Price, MCAP, UDAP, and DDAP; and
- viii(A) any ConGN/CoffGN and PConGN/PCoffGN and non Qualifying

  Quantities under Chapter 6in the case of the Electricity Generation

  Corporation the MWh quantity of non-compliance; and
- viii(B) details of any of the following for the Market Participant:
  - Constrained On Quantities and associated Constrained On Compensation Prices;
  - Constrained Off Quantities and associated Constrained Off
     Compensation Prices;
    - 3. Non Qualifying Constrained On Generation;
      - 4. Non Qualifying Constrained Off Generation; and
      - 5. Non-Balancing Facility Dispatch Instruction Payment;

#### viii(C) the Metered Balancing Quantity for the Market Participant;

- ix. details of amounts calculated for the Market Participant under clauses 9.7 to 9.14 with respect to:
  - 1. Reserve Capacity settlement;
  - Balancing settlement;
  - 3. Ancillary Services settlement;
  - 4. Commitment and outage compensation settlement;
  - 4A. Non-Compliance Cost settlement;
  - 5. Reconciliation settlement;
  - [Blank];
  - 7. Fee settlement; and
  - 8. Net Monthly Non-STEM Settlement Amount;
- (cA) details of any Capacity Credits allocated to the Market Participant in a Capacity Credit Allocation Submission made by another Market Participant in accordance with clauses 9.4 and 9.5;
- (cB) details of any Capacity Credits allocated to another Market Participant in a Capacity Credit Allocation Submission made by the Market Participant in accordance with clauses 9.4 and 9.5;
- (cC) details of any reductions in payments in the preceding Trading Month under clause 9.24.3A as a result of a Market Participant being in default;
- (cD) details of any payments to the Market Participant as a result of the IMO recovering funds not paid to the Market Participant in previous Trading Months under clause 9.24.3A as a result of a Market Participant being in default;

- (cE) in regard to Default Levy re-allocations, as defined in accordance with clause 9.24.9:
  - the total amount of Default Levy paid by that Market Participant during the Financial Year, with supporting calculations;
  - ii. the adjusted allocation of those Default Levies to be paid by that Market Participant, with supporting calculations; and
  - iii. the net adjustment be made;
- (d) whether the statement is an adjusted Non-STEM Settlement Statement and replaces a previously issued Non-STEM Settlement Statement;
- (e) in the case of an adjusted Non-STEM Settlement Statement, details of all adjustments made relative to the first Non-STEM Settlement Statement issued for that Trading Month with an explanation of the reasons for the adjustments;
- (f) any interest applied in accordance with clause 9.1.3;
- (g) the net dollar amount owed by the Market Participant to the IMO for the billing period (i.e. the Trading Days covered by the Non-STEM Settlement Statement) where this may be a positive or negative amount; and
- (h) all applicable taxes.
- 9.19.2. Subject to clause 9.19.3, an adjusted Settlement Statement must be in the same form as the original Settlement Statement, but where data is modified between the issuance of the original Settlement Statement and the adjusted Settlement Statement, the IMO must record adjusted settlement both values in the adjusted Settlement Statement and provide an explanation of the any changes on request.
- 9.22.6. If an Invoice indicates that a Rule Participant owes an amount greater than one dollar to the IMO, then the Rule Participant must pay the full amount to the IMO (in cleared funds) by 10 AM on the date specified in the Invoice in accordance with clause 9.16.1(b), 9.16.2(e) and 9.16.4(d) (as applicable), whether or not it disputes the amount indicated to be payable.
- 9.22.8. If an Invoice indicates that the IMO owes an amount greater than one dollar to a Rule Participant, then the IMO must pay make available the full amount to the Rule Participant (in cleared funds) by 2 PM on the date specified in the Invoice in accordance with clause 9.16.1(b), 9.16.2(e) and 9.16.4(d) (as applicable), except as provided for in clause 9.24.

## 10 Market Information

## **Information Policy**

#### 10.1. Record Retention

- 10.1.1. The IMO must develop and publish a list of all information and documents that relate to the Wholesale Electricity Market activities that Rule Participants must retain.
- 10.1.2. Effective from the date that the IMO publishes a list containing the relevant information or document, Rule Participants must retain any information or documents of that kind for a period of seven years from the date it is created, or such longer period as may be required by law.

#### 10.2. Information Confidentiality Status

- 10.2.1. The IMO must, in accordance with the Market Rules and Market Procedures, set and publish the confidentiality status for each type of market related information and document produced or exchanged in accordance with the Market Rules or Market Procedures.
- 10.2.2. The classes of confidentiality status are:
  - (a) Public, in which case the relevant information or documents may be made available to any person by any person;
  - (b) [Blank] SWIS Restricted, in which case the relevant information or documents may only be made available to:
    - i. Rule Participants;
    - ii. the Market Advisory Committee;
    - iii. the IMO;
    - iv. the Electricity Review Board;
    - v. the Economic Regulation Authority; and
    - vi. other Regulatory or Government Agencies in accord with applicable laws;
  - (c) Rule Participant Market Restricted, in which case the relevant information or documents may only be made available to:
    - a specific Rule Participant;
    - ii. the IMO;
    - iii. the Electricity Review Board;
    - iv. the Economic Regulation Authority; and

- v. other Regulatory or Government Agencies in accord with applicable laws;
- (d) Rule Participant Dispatch Restricted, in which case the relevant information or documents may only be made available to:
  - i. a specific Rule Participant;
  - ii. System Management;
  - iii. the IMO;
  - iv. the Electricity Review Board;
  - v. the Economic Regulation Authority; and
  - vi. other Regulatory or Government Agencies in accord with applicable laws;
- (e) System Management Confidential, in which case the relevant information or documents may only be made available to:
  - System Management;
  - ii. the IMO;
  - iii. the Electricity Review Board;
  - iv. the Economic Regulation Authority; and
  - v. other Regulatory or Government Agencies in accord with applicable laws;
- (f) IMO Confidential, in which case the relevant information or documents may only be made available to:
  - i. the IMO;
  - ii. the Electricity Review Board;
  - iii. the Economic Regulation Authority; and
  - iv. other Regulatory or Government Agencies in accord with applicable laws; and
- (g) Rule Participant Network Restricted, in which case the relevant information or documents may only be made available to:
  - i. a specific Rule Participant;
  - ii. the relevant Network Operator;
  - iii. System Management;
  - iv. the IMO;
  - v. the Electricity Review Board;
  - vi. the Economic Regulation Authority; and

- vii. any other Regulatory or Government Agencies in accord with applicable laws.
- 10.2.3. In setting the confidentiality status of a type of market related information or document under clause 10.2.1, the IMO must have regard to the following principles:
  - (a) <u>information that discloses the price of electricity, capacity or any related</u>
    <u>service, equipment, or plant, or commercially sensitive or potentially</u>
    defamatory information pertaining to a Rule Participant is not made public
    or revealed to other Rule Participants except in accordance with legal
    requirements or requirements of these Market Rules;
  - (b) subject to paragraph (a), Rule Participants are to have access to information pertaining to current and expected future conditions of the power system that may impact on their ability to trade, deliver, or consume energy;
  - (c) the IMO <u>canmay</u> make available to a person information if the IMO is required to do so by law or these Market Rules;
  - (d) the IMO <u>canmay</u> restrict the availability of information to a person where this is required by law, or these Market Rules;
  - the IMO <u>canmay</u> declare incomplete working documents to be IMO Confidential;
  - (f) <u>information that may be aggregated or provided in a form that does not</u>

    <u>disclose material that would otherwise be confidential, is to be Public the</u>

    <u>IMO can declare incomplete working documents of System Management to be System Management Confidential; and</u>
  - (g) subject to this clause 10.2.3, the confidentiality status must <u>seek to</u> maximise the number of parties that may view the information or document;
  - (h) information already in the public domain, other than by reason of a breach of existing confidentiality obligations, has a confidentiality status of Public;
  - (i) information already known to a person, other than by reason of a breach of existing confidentiality obligations, is available to that person; and
  - (j) information that would otherwise be confidential may be disclosed to the extent that the IMO is satisfied its disclosure is with the consent of the party to whom the information is confidential.
- 10.2.4. Subject to clauses 10.2.5, 10.2.6 and 10.4.1, a Rule Participant must not provide information or documents of a given confidentiality status to any person.
- 10.2.5. Clause 10.2.4 does not apply to information or documents:

- (a) that, other than as a result of a breach of confidentiality obligations, is or becomes available in the public domain;
- (b) that, other than as a result of a breach of confidentiality obligations, is or becomes already known to thea person receiving it;
- (c) required to be provided by law or a stock exchange having jurisdiction over the Rule Participant;—or
- (d) required in connection with resolving a <u>legal</u> dispute; or
- (e) that would otherwise be confidential, where the IMO is satisfied disclosure is with the consent of the party to whom the information is confidential.
- 10.2.6. A Rule Participant may disclose information or a document to:
  - (a) any person (including another Rule Participant) where the confidentiality status of the information or document is set as Public by the IMO under clause 10.2.1;
  - (b) [Blank]any other Rule Participant where the confidentiality status of the information or document is set as SWIS Restricted by the IMO under clause 10.2.1;
  - (c) the specific Rule Participant able to receive the information or document in accordance with the confidentiality status, where the confidentiality status of the information or document is set as either Rule Participant Market Restricted or Rule Participant Dispatch Restricted by the IMO under clause 10.2.1; or
  - (d) a Representative of the Rule Participant or a Representative of any person able to receive the information or document under paragraphs (a), (b) or (c).
- 10.2.7. The IMO must document the Market Procedure it follows in setting and publishing the confidentiality status of information in clause 10.2. The IMO must comply with that documented Market Procedure.

#### 10.3. The Market Web Site

- 10.3.1. The IMO must maintain a Market Web Site for the purpose of:
  - (a) providing information on the nature and operation of the market;
  - (b) providing information on market performance; and
  - (c) disseminating reports and documents.
- 10.3.2. Subject to clause 10.4.2, the IMO must not require a fee for information or documents released by the IMO via the Market Web Site.
- 10.3.3. Where these Market Rules require System Management to provide information and documents to the IMO to be published on the Market Web Site, and the IMO is not required to approve or alter such information or documents, then, with

System Management's agreement, the IMO may delegate to System Management the authority to directly post such information or documents on the Market Web Site. The IMO retains the right to cancel such delegation without consultation with System Management.

- 10.3.4. Where the IMO allows System Management to post information or documents on the Market Web Site in accordance with clause 10.3.3 the IMO's obligation under these Market Rules to publish such information or documents will transfer to System Management.
- 10.3.5. The IMO must document the protocols by which System Management and the IMO can change the Market Web Site in a Market Procedure and the IMO and System Management must comply with that documented Market Procedure in respect of changing the Market Web Site.

#### 10.4. Information to be Released on Application

- 10.4.1. The IMO must make information and documents available on application by any person subject to that person being a member of the class of persons able to receive information or documents in accordance with the relevant confidentiality status.
- 10.4.2. The IMO may charge a person a fee for providing information or documents provided in accordance with clause 10.4.1, where that fee may not exceed the IMO's costs, not otherwise included in the IMOs budget, of:
  - (a) collating and transmission of information or documents; and
  - (b) preparing documents not otherwise required by the Market Rules, applicable law or regulation.

#### Information to be Released via the Market Web Site

#### 10.5. Public Information

- 10.5.1. The IMO must set the class of confidentiality status for the following information under clause 10.2.1, as Public and the IMO must make each item of information available from the Market Web-\_Site after that item of information becomes available to the IMO:
  - (a) the following Market Rule and Market Procedure information and documents:
    - i. information on the records that must be maintained by Rule Participants;
    - iA. any information that is required by the Market Rules to be published on the Market Web Site;

- ii. the list of the confidentiality status of information and documents pertaining to the Wholesale Electricity Market developed by the IMO in accordance with clause 10.2.1;
- iii. the current version of the Market Rules;
- iv. information on any Amending Market Rules that have been made in accordance with the Rule Change Process but are yet to commence or to be included in the current version of the Market Rules, including the date those Amending Rules will take affect;
- v. any Rule Change Proposals that are open to public comment;
- vi. the current version of Market Procedures;
- vii. information on any changes to any Market Procedures that have been made in accordance with the Procedure Change Process but are yet to commence or to be included in the current version of the applicable Market Procedure, including the date those Market Procedure changes will take affect;
- viii. any Procedure Change Proposals that are open to public comment; and
- ix. a document summarising all Rule Change Proposals and Procedure Change Proposals that are no longer open to public comment and whether or not those proposals were accepted or rejected;
- (b) instructions as to how to initiate a Rule Change Process and Procedure Change Process;
- (c) details of all Rule Participants including:
  - i. name;
  - ii. mailing address, telephone and facsimile number;
  - iii. the name and title of a contact person;
  - iv. details of applicable licenses held;
  - v. applicable Rule Participant classes;
  - vi. applicable Market Participant classes; and
  - vii. names and capacities of Registered Facilities;
- (d) the precise basis for determining the Bank Bill Rate;
- (e) details of bid, offer and clearing price limits as approved by the Economic Regulation Authority including:
  - i. the Maximum Reserve Capacity Price;
  - ii. the Maximum STEM Price;
  - iii. the Alternative Maximum STEM Price; and

iv. the Minimum STEM Price,

including rules that could cause different values to apply at different times;

- (f) the following Reserve Capacity information (if applicable):
  - Requests for Expressions of Interest described in clause 4.2.3 for the previous five Reserve Capacity Cycles;
  - ii. the summary of Requests for Expressions of Interest described in clause 4.2.7 for the previous five Reserve Capacity Cycles;
  - iii. the Reserve Capacity Information Pack published in accordance with clause 4.7.2 for the previous five Reserve Capacity Cycles;
  - iiiA. for each Market Participant that was assigned Certified Reserve Capacity, the level of Certified Reserve Capacity assigned to each to Facility for each Reserve Capacity Cycle;
  - iv. for each Market Participant holding Capacity Credits, the Capacity Credits provided by each Facility for each Reserve Capacity Cycle;
  - v. the identity of each Market Participant from which the IMO procured Capacity Credits in the most recent Reserve Capacity Auction, and the total amount procured, where this information is to be published by January 7th of the year following the Reserve Capacity Auction;
  - vi. for each Special Price Arrangement for each Registered Facility:
    - 1. the amount of Reserve Capacity covered;
    - 2. the term of the Special Price Arrangement; and
    - the Special Reserve Capacity Price applicable to the Special Price Arrangement,

where this information is to be current as at, and published on, January 7th of each year;

- vii. all Reserve Capacity Offer quantities and prices, including details of the bidder and facility, for a Reserve Capacity Auction, where this information is to be published by January 7th of the year following the Reserve Capacity Auction;—and
- viii. reports summarising facility tests the outcome of a Reserve

  Capacity Test and reasons for delays in those tests, as required by clause 4.25.11; and
- ix. The following annually calculated and monthly adjusted ratios:
  - NTDL\_Ratio as calculated in accordance with Appendix 5, STEP 8;
  - TDL\_Ratio as calculated in accordance with Appendix 5, STEP 8; and

- 3. Total\_Ratio as calculated in accordance with Appendix 5, STEP 10:
- (g) the Ancillary Service report referred to in clause 3.11.11(b);
- (h) for each Trading Interval in each completed Trading Day in the previous 12 calendar months:
  - the sum of the Metered Schedule generation for Scheduled Generators and Non-Scheduled Generators registered to the Electricity Generation Corporation Verve Energy;
  - ii. the sum of the Metered Schedule generation for Scheduled Generators and Non-Scheduled Generators registered to Market Participants other than the Electricity Generation Corporation Verve Energy; and
  - iii. the sum of the Resource Plan schedule generation for Scheduled Generators and Non-Scheduled Generators registered to Market Participants other than the Electricity Generation Corporation Verve Energy;
- (i) the following STEM summary information:
  - i. for each Trading Interval in each completed Trading Day in the previous 12 calendar months:
    - 1. the total STEM Offer quantity;
    - 2. the total STEM Bid quantity;
    - whether the STEM was suspended in relation to the relevant Trading Interval;
    - 4. where the STEM was not suspended, the STEM quantity purchased by the IMO; and
    - 5. where the STEM was not suspended, the STEM Clearing Price;
  - ii. for each Trading Interval in each Trading Day during the 12 calendar months, before the end of the seventh day from the start of the Trading Day:
    - the STEM Offers by Market Participant;
    - the STEM Bids by Market Participant;
    - 3. the quantity bought or sold in the STEM by Market Participant; and
    - 4. the Fuel Declaration, Availability Declaration and, if applicable, Ancillary Service Declaration made by the Market Participant;
- (iA) the following Balancing summary information:

- i for each Trading Interval in each completed Trading Day in the previous 12 calendar months:
  - where available, each Balancing Forecast;
  - 2. where available, the BMO, excluding information that would identify specific Market Participants;
  - 3. where available, the total Relevant Dispatch Quantity; and
  - 4. where available, the Balancing Price;
- (iB) for each Trading Interval in each completed Trading Day in the previous 12 calendar months, before the end of the seventh day from the start of the Trading Day:
  - the prices in Balancing Price-Quantity Pairs submitted in Balancing Submissions by Market Participant; and
  - 2. the Fuel Declaration, Availability Declaration and, if applicable,
    Ancillary Service Declaration made by Market Participant;
- (iC) the following LFAS summary information:
  - i for each Trading Interval in each completed Trading Day in the previous 12 calendar months:
    - the LFAS Downwards Merit Order;
    - the LFAS Upwards Merit Order;
    - where available, the Upwards LFAS Quantity and the <u>Downwards LFAS Quantity; and</u>
    - 4. where available, the LFAS Price:
- (iD) for each Trading Interval in each completed Trading Day in the previous 12 calendar months, before the end of the seventh day from the start of the Trading Day, the LFAS Submissions by Market Participant;
- (j) for each Trading Interval in each completed Trading Day in the previous 12 calendar months the following dispatch summary information:
  - the values of the Balancing Price and the LFAS Price, MCAP UDAP and DDAP;
  - ii. the Load Forecasts prepared by System Management in accordance with clause 7.2.1;
  - iii. the sum of the Metered Schedule load for all Non-Dispatchable Load, Dispatchable Load and Interruptible Load;
  - iv. estimates of the energy not served due to involuntary load curtailment; and

- v. any shortfalls in Ancillary Services;
- (jA) i. for each Trading Interval in each completed Trading Day in the
   previous 12 calendar months, before the end of the seventh day from
   the start of the Trading Day, any changes to a Facility's Consumption
   Decrease Price or Consumption Increase Price; and
  - ii. the values of any Consumption Decrease Price or Consumption
     Increase Price of a Facility that has been dispatched pursuant to a
     Dispatch Instruction, as soon as practicable;
- (vA) the non-compliance cost described in clause 9.10A.2;
- (vC) reports providing the MWh quantities of energy dispatched under Balancing Support Contracts by Facility and Trading Interval, as specified by System Management in accordance with clause 7.13.1(dA), for each Trading Month which has been settled;
- (jB) for each Trading Month which has been settled under Chapter 9, reports providing the MWh quantities of energy dispatched under Network Control Service Contracts, by Facility, and by Trading Interval, as specified by System Management in accordance with clause 7.13.1(dA);

. . .

- for each Trading Interval of the current Trading Month for which Bealancing

  Perice results have been released to Market Participants;
  - i. the values of the Balancing Price, MCAP UDAP and DDAP; and
  - ii. the load forecast prepared by System Management in accordance with clause 7.2.1(b):
- (xi) for each Trading Interval of the current Trading Month for which LFAS

  Price results have been released to Market Participants the value of the

  LFAS Price;
- (y) as soon as practicable after a Trading Interval:
  - i. the total generation in that Trading Interval;
  - ii. the total Spinning Reserve in that Trading Interval; and
  - iii. an initial value of the Operational System Load Estimate, taken directly from System Management's EMS/SCADA system.

where these values are to be available from the IMO Web Site for each Trading Interval in the previous 12 calendar months;

- (z) as soon as practicable after real-time:
  - i. the total generation;
  - ii. the total Spinning Reserve; and

- iii. an initial value of the Operational System Load Estimate, taken directly from System Management's EMS/SCADA system.;
- where these values are not required to be maintained on the IMO Web Site after their initial publication;
- (zA) the current Tolerance Range determined by System Management in accordance with clause 2.13.6D, including the information provided to the IMO in accordance with clause 2.13.6D;
- (zB) any Facility Tolerance Ranges determined by System Management in accordance with clause 2.13.6E, including the information provided to the IMO in accordance with clause 2.13.6E, and, if applicable, any Facility Tolerance Ranges which System Management has been directed to vary by the IMO in accordance with clause 2.13.6H;-
- (zC) summary information on Disputes in progress that may impact other Rule

  Participants;
- (zD) schedules of Planned Outages;
- (zE) the current Non-Balancing Dispatch Merit Order;
- (zF) audit reports;
- (zG) documentation of the functionality of:
  - i. any software used to run the Reserve Capacity Auction;
  - ii. the STEM Auction software; and
  - iii. the Settlement System software; and
- (zH) information relating to Commissioning Tests which is supplied under clause 3.21A.16 by System Management.
- 10.5.2 The IMO must set the class of confidentiality status for the following information under clause 10.2.1, as Public:
  - (a) SACDA data by Facility;
  - (b) the sum of each LF\_Up\_Market\_Payment referred to in clause 9.9.2(a) that was made in a Trading Month;
  - (c) the sum of each LF\_Down\_Market\_Payment referred to in clause 9.9.2(b) that was made in a Trading Month;
  - (d) the sum of each total Trading Month LF\_Market\_Payment referred to in clause 9.9.2(d) that was made in a Trading Month;

- (e) the payment referred to in clause 9.9.2(e) for each Trading Interval in a Trading Month;
- (f) the payment referred to in clause 9.9.2(f) for each Trading Interval in a Trading Month;
- (g) the payment referred to in clause 9.9.2(g);
- (h) the cost referred to in clause 9.9.2(h) for each Trading Interval in a Trading Month;
- (i) the cost referred to in clause 9.9.2(i) for each Trading Interval in a Trading Month;
- (j) the cost referred to in clause 9.9.2(m);
- (k) the cost referred to in clause 9.9.2(o); and
- (I) the cost referred to in clause 9.9.2(p).

#### 10.6. [Blank] SWIS Restricted Information

- 10.6.1. The IMO must set the class of confidentiality status for the following information under clause 10.2.1, as SWIS Restricted Information and the IMO must make this information available from the Market Web Site:
  - (a) summary information on Disputes in progress that may impact other Rule Participants;
  - (b) schedules of Planned Outages;
  - (c) the current Dispatch Merit Order;
  - (d) audit reports;
  - (e) documentation of the functionality of :
    - i. any software used to run the Reserve Capacity Auction;
    - ii. the STEM Auction software; and
    - iii. the Settlement System software; and
  - (f) information relating to Commissioning Tests which is supplied under clause 3.21A.16 by System Management.

#### 10.7. Rule Participant Market Restricted Information

- 10.7.1. The IMO must set the class of confidentiality status for the following information under clause 10.2.1, as Rule Participant Restricted Information and the IMO must make this information available from the Market Web Site:
  - (a) all Reserve Capacity Offer information issued by that Market Participant and all details of Special Price Arrangements for that Market Participant

- prior to the publication of that information in accordance with clause 10.5.1(f);
- (b) Market Participant specific Reserve Capacity Obligations;
- (c) Market Customer specified Individual Reserve Capacity Requirements partitioned into those associated with Intermittent Loads and those not associated with Intermittent Loads;
- (d) for each completed Trading Day for the past 12 months:
  - Market Participant specific Bilateral Submissions, and Resource Plan Submissions, Balancing Data Submissions and Standing Balancing Data submissions used in the absence of a Balancing Data Submission;
  - ii. Market Participant specific STEM Submissions and Standing STEM Submissions used in the absence of a STEM Submission except that information published in accordance with clause 10.5.1(i);
- (e) for the past 12 months:
  - i. Non-STEM Settlement Statements; and
  - ii. STEM Settlement Statements

#### 10.8. Rule Participant Dispatch Restricted Information

- 10.8.1. The IMO must set the class of confidentiality status for a Market Participant Specific Dispatch Schedules under clause 10.2.1, as Rule Participant Dispatch Restricted Information and the IMO must make this information available from the Market Website for each Trading Interval in completed Trading Months for the past 12 Trading Months.
- 10.8.2. The IMO must set the class of confidentiality status for all Electricity Generation Corporation Verve Energy information specified in clause 7.6A as Rule Participant Dispatch Restricted Information with the exception of information specified by the Electricity Generation Corporation Verve Energy under clauses 7.6A.2(g) and 7.6A.3(c).

# **Appendix 1: Standing Data**

This Appendix describes the Standing Data to be maintained by the IMO for use by the IMO in market processes and by System Management in dispatch processes.

Standing Data required to be provided as a pre-condition of fer Facility Registration, and which Rule Participants are is to be updated by Rule Participants as necessary, is described by in clauses (a) to (ii).

Standing Data not required to be provided as a pre-condition of for Facility Registration but that which the IMO is required to be maintained by the IMO, and which Rule Participants are to update as necessary, includes the data described in clauses (kj) to (m) enwards.

- (b) for a Scheduled Generator:
  - i. evidence that the communication and control systems required by clause 2.36 are in place and operational;
  - ii. the name plate capacity of the generator, expressed in MW;
  - iiA. the minimum load at the connection point of the generator that will automatically trip off if the generator fails, expressed in MW;
  - iii. the sent out capacity of the generator, expressed in MW;
  - iiiA. the dependence of capacity on the type of fuel used by the facility for each fuel described in (xi);
  - iv. the dependence of capacity on temperature at the location of the facility;
  - v. the normal ramp up and ramp down rates as a function of output level;
  - vi. emergency ramp up and ramp down rates;
  - vii. the over-load capacity of the generator, if any, expressed in MW;
  - viii. the AGC capabilities of the facility;
  - ix. the Black Start capability of the facility;
  - x. the capability to provide each of the following Ancillary Services, including information on trade-off functions when more than one other type of Ancillary Service and/or energy is provided simultaneously:
    - Load Following;
    - 2. Spinning Reserve; and
    - 3. [Blank]; and
    - Load Rejection Reserve;

- xi. details of the fuel or fuels that the facility can use, including dual fuel capabilities and the process for changing fuels;
- xii. details of any potential energy limits of the facility;
- xiii. the minimum stable loading level of the generator, expressed in MW;
- xiv. the minimum dispatchable loading level of the generator, expressed in MW;
- xv. any output range between minimum dispatchable loading level and name plate capacity in which the facility is incapable of stable or safe operation;
- xvi. sub-transient, transient and steady state impedances (positive, negative and zero sequence) for the facility;
- xvii. the minimum time to synchronisation from each of the following states:
  - 1. cold;
  - warm;
  - 3. hot;

and the number of hours that must have elapsed since the facility last ran for it to be considered in each of these states;

- xviii. the minimum time before the facility can be restarted after it is shut down:
- xix. the <u>facility's</u> minimum <u>physical</u> response time before the facility can begin to respond to an <u>Dispatch Instruction or Operating il</u>nstruction <u>from System Management to change its output</u>;
- xx. the Metering Data Agent for the facility;
- xxi. the single line diagram for the facility, including the locations of transformers, switches, operational and settlement meters;
- xxii. the <u>point on the</u> network <del>nodes</del> at which the facility can connect; and
- xxiii. the short circuit capability of facility equipment.
- (c) [Blank]for a Scheduled Generator not registered to the Electricity
  Generation Corporation:
  - i. a commitment and decommitment cost data comprising:
    - a whole dollar amount representing the cost of committing the facility, where this amount must represent reasonable costs incurred in the typical start-up as justified by supporting evidence.

- a whole dollar amount representing the cost of decommitting the facility;
- ii. [Blank]
- iii. [Blank]
- iv. [Blank]
- v. Standing Balancing Data for Scheduled Generators registered as being capable of running on Non-Liquid Fuel comprising:
  - 1. a Non-Liquid Supply Increase Price for Peak Trading Intervals;
  - a Non-Liquid Supply Increase Price for Off-Peak Trading Intervals:
  - a Non-Liquid Supply Decrease Price for Peak Trading Intervals:
  - a Non-Liquid Supply Decrease Price for Off-Peak Trading Intervals;
- where these prices must be not less than the Minimum STEM Price, not more than the Maximum STEM Price, and must be expressed in units of \$/MWh to a precision of \$0.01/MWh; and
- vi. Standing Balancing Data for Scheduled Generators registered as being capable of running on Liquid Fuel comprising:
  - 1. a Liquid Supply Increase Price for Peak Trading Intervals;
  - 2. a Liquid Supply Increase Price for Off-Peak Trading Intervals:
  - a Liquid Supply Decrease Price for Peak Trading Intervals;
  - a Liquid Supply Decrease Price for Off-Peak Trading Intervals;
- where these prices must be not less than the Minimum STEM Price, not more than the Alternative Maximum STEM Price, and must be expressed in units of \$/MWh to a precision of \$0.01/MWh;
- (d) [Blank]
- (e) for a Non Scheduled Generator:
  - i. evidence that the communication and control systems required by clause 2.36 are in place and operational;
  - ii. the name plate capacity of the generator, expressed in MW;
  - iiA. the minimum load at the connection point of the generator that will automatically trip off if the generator fails, expressed in MW;
  - iii. the ramp down rates;

#### iiiA. the sent out capacity of the generator, expressed in MW;

- iv. the capability to provide Load Rejection Reserve, including information on trade-off functions when energy is provided simultaneously;
- v. [Blank]for a facility not registered to the Electricity Generation
  Corporation a price between the Minimum STEM Price and the
  Maximum STEM Price in units of \$/MWh expressed to a precision
  of \$0.01/MWh to be the basis for payments by the Market
  Participant for decreases in generation in response to a Dispatch
  Instruction where a different price may be specified for Peak
  Trading Intervals and Off-Peak Trading Intervals;
- vi. the minimum response time before the facility can begin to respond to an instruction from System Management to change its output;
- vii. the Metering Data Agent for the facility;
- viii. the single line diagram for the facility, including the locations of transformers, switches, operational and settlement meters;
- ix. the point on the network nodes at which the facility can connect;
- x. the short circuit capability of facility equipment; and
- xi. sub-transient, transient and steady state impedances (positive, negative and zero sequence) for the facility;
- (h) for a Demand Side Programme:
  - i. [Blank]
  - ii. evidence that the communication and control systems required by clause 2.35 are in place and operational;
  - iii. the maximum amount of load that can be curtailed;
  - iv. the maximum duration of any single curtailment;
  - v. [Blank]
  - vi. for a Demand Side Programme that is registered to a Market Participant other than the Electricity Generation Corporation Verve Energy, Standing Balancing Ddata comprising:
    - a Consumption Decrease Price for Peak Trading Intervals; and
    - a Consumption Decrease Price for Off-Peak Trading Intervals,

where these prices must be not less than the Minimum STEM Price, not more than the Alternative Maximum STEM Price, and must be expressed in units of \$/MWh to a precision of \$0.01/MWh;

- vii. the minimum response time before the Demand Side Programme can begin to respond to an instruction from System Management to change its output;
- viii. the maximum number of hours per year the Demand Side Programme can be curtailed;
- ix. the Trading Intervals where the Demand Side Programme can be curtailed:
- x. any restrictions on the availability of the Demand Side Programme;
- xi. the normal ramp up and ramp down rates as a function of output level, if applicable;
- xii. emergency ramp up and ramp down rates, if applicable; and
- xiii. the maximum number of times that the Demand Side Programme can be curtailed during the term of its Capacity Credits;.
- (i) for a Dispatchable Load:
  - the Market Customer's nominated maximum consumption quantity,
     in units of MWh per Trading Interval;
  - ii. evidence that the communication and control systems required by clause 2.36 are in place and operational;
  - iii. the dispatchable capacity of the load, expressed in MW;
  - iv. the normal ramp up and ramp down rates as a function of output level;
  - v. emergency ramp up and ramp down rates;
  - vi. the AGC capabilities of the facility;
  - vii. details of any potential Energy Limits of the facility;
  - viii. the minimum dispatchable load level of the facility, expressed in MW;
  - ix. the maximum dispatchable load level of the facility, expressed in MW;
  - x. the capability to provide each of the following Ancillary Services, including information on trade-off functions when more than one other type of Ancillary Service and/or energy is provided simultaneously:
    - Load Following;
    - 2. Spinning Reserve; and
    - 3. [Blank]; and
    - 4. Load Rejection Reserve;

- xA. for a facility that is registered to a Market Participant other than the Electricity Generation Corporation Verve Energy, Standing Balancing Ddata comprising:
  - 1. a Consumption Increase Price for Peak Trading Intervals;
  - a Consumption Increase Price for Off-Peak Trading Intervals;
  - a Consumption Decrease Price for Peak Trading Intervals;
     and
  - 4. a Consumption Decrease Price for Off-Peak Trading Intervals,

where these prices must be not less than the Minimum STEM Price, not more than the Alternative Maximum STEM Price, and must be expressed in units of \$/MWh to a precision of \$0.01/MWh;

- xi. the minimum response time before the facility can begin to respond to an instruction from System Management to change its output;
- xii. the Metering Data Agent for the facility;
- xiii. the single line diagram for the facility, including the locations of transformers, switches, operational and settlement meters;
- xiv. the <u>point on the</u> network <del>nodes</del> at which the facility can connect;
- xv. the short circuit capability of facility equipment; and-
- whether the facility wishes to be considered for providing LFAS and,
   if so, evidence that the facility will meet the LFAS Facility
   Requirements including any limitations on enablement quantities;
- (i) [Blank] for a Scheduled Generator and a Non-Scheduled Generator:
  - i. whether the Market Participant intends the facility to participate in the LFAS Market; and
  - ii. for each facility that a Market Participant intends to participate in the LFAS Market, evidence that the Facility meets the LFAS Facility Requirements including any limitations on enablement and quantities.

# Appendix 6: STEM Bid, and STEM Offer and MCAP Price Curve Determination

. . .

The second part of this appendix describes a process for converting all Market Participant Portfolio Supply Curves into a single MCAP Price Curve.

For each Trading Interval in the Trading Day:

- (f) Determine for every price between the Minimum STEM Price and the Alternative Maximum STEM Price:
  - i. the sum over all Market Participants except those recorded as not making a STEM Submission for the Trading Interval of the maximum cumulative quantity the Market Participant is prepared to sell into the STEM from all of its Price-Quantity Pairs in its Portfolio Supply Curve;
  - ii. the sum over all Market Participants except those recorded as not making a STEM Submission for the Trading Interval of the minimum cumulative quantity the Market Participant is prepared to sell into the STEM from all of its Price-Quantity Pairs in its Portfolio Supply Curve;
  - iii. the MCAP Price Curve quantity for that price where
    - 1. the minimum MCAP Price Curve quantity for that price equals the value in (ii);
    - 2. the maximum MCAP Price Curve quantity for that price equals the value in (i); and
    - 3. the MCAP Price Curve for that price includes all quantities between those in (1) and (2).

# Appendix 7:[Blank] Dispatch Schedule Calculation

The process in this appendix defines the Dispatch Schedule for a Market Participant, other than the Electricity Generation Corporation, that has received a Dispatch Instruction from System Management during a Trading Interval.

Where the IMO must calculate the Dispatch Schedule for a Market Participant's Scheduled Generator or Dispatchable Load under clause 6.15.1(b), it must use the following process.

Each Dispatch Instruction can be considered as having two ramp rates

- The ramp rate specified in the Dispatch Instruction that applies from the time when response to the Dispatch Instruction is required to commence until the time when the target output level is reached; and
- A ramp-rate of zero once the target output level is reached.

For each Trading Interval, define a set of time intervals within the Trading Interval during which different ramp-rates apply.

From n=0 to n=N, t(n) is the time in minutes from which Ramp Rate(n), in MW/minute applies

• 
$$t(0) = 0$$

 if a new Dispatch Instruction is issued its ramp-rate applies from the time when response to the Dispatch Instruction is required to commence, overriding a previous Dispatch Instruction

• 
$$t(N) = 30$$

FOL(0) is the initial net output level in MW as at the start of the Trading Interval, where FOL(0) is positive valued for supply and negative valued for consumption.

FOL(0) is determined from either:

- the Resource Plan value, or
- where a Dispatch Instruction applied at the beginning of the Trading Interval, from the previous Trading Interval's FOL(N) calculation

$$FOL(n+1) = FOL(n) + Ramp Rate(n) \times (t(n+1) - t(n))$$

Then:

Dispatch Schedule =  $0.5 \times Sum[n=1 \text{ to N}, (FOL(n-1) + FOL(n)) \times (t(n) - t(n-1))/60]$ 

# PROPOSED AMENDMENTS TO THE GLOSSARY OF THE WHOLESALE ELECTRICITY MARKET RULES

### **5 December 2011**

Proposed balancing and load following ancillary service changes in red underline and strikethrough

#### **Disclaimer**

This unofficial extract of the Wholesale Electricity Market Rules reflects the rules as amended and published in the Government Gazette up to 15 December 2006 and amending changes made by the IMO up to 1 December 2011 together with proposed balancing amendments in mark up. This unofficial extract is provided for information and has no legal standing. The Independent Market Operator disclaims any responsibility for any liability arising from any act done or omission made in reliance on this unofficial extract of the Wholesale Electricity Market Rules.

For the version of the Wholesale Electricity Market Rules that is currently in force under the *Electricity Industry (Wholesale Electricity Market) Market Rules 2004* please refer to the *Wholesale Electricity Market Rules (September 2006)* as Gazetted on 19 September 2006 and any subsequent amendments gazetted in the Western Australia Government Gazette or approved and published by the IMO on the IMO web site.

# 11 Glossary

Acceptable Credit Criteria: The criteria set out in clause 2.38.6.

**Access Code**: The code established by the Minister under section 104 of the Electricity Industry Act 2004.

**Access Proposal**: Has the meaning given in clause 4.2.7(b)(ii)(1).

Adjustment Process: Has the meaning given in clause 9.16.3.

**Administration Procedure**: The Market Procedure developed by the IMO in accordance with clause 2.9.5.

**Allowable Revenue**: With respect to the IMO, the allowable revenue for the IMO in providing the services set out in clause 2.22.1 as approved by the Economic Regulation Authority in accordance with clause 2.22.12. With respect to System Management, the allowable revenue for System Management in providing the services set out in clause 2.23.1 as approved by the Economic Regulation Authority in accordance with clause 2.23.12.

**Alternative Maximum STEM Price**: The maximum price set in accordance with clause 6.20.3 that may be associated with a Portfolio Supply Curve for a portfolio including Facilities expected to run on Liquid Fuel or any Portfolio Demand Curve forming part of a STEM Submission or Standing STEM Submission.

**Amending Rules**: Has the meaning given in clause 2.4.1(c).

**Ancillary Service**: A service, including those described in clause 3.9, that is required to maintain Power System Security and Power System Reliability, facilitate orderly trading in electricity and ensure that electricity supplies are of acceptable quality.

**Ancillary Service Contract**: A contract between System Management and a Market Participant for the provision by that Market Participant of an Ancillary Service or Ancillary Services to System Management.

**Ancillary Service Declaration**: A declaration included with a STEM Submission or Standing STEM Submission made by a Market Participant which is a provider of Ancillary Services and which includes the information described in clause 6.6.2A(c).

**Ancillary Service Provider**: A Rule Participant registered as an Ancillary Service Provider under clause 2.28.11A.

Ancillary Service Requirements: Are as determined in accordance with clause 3.11.

**Application Fee**: A fee determined by the IMO under clause 2.24.2.

**Appointed Day**: Means the day fixed by the Minister by order published in the Government Gazette.

Arrangement for Access: When used in the context of a "covered network" (as that term is defined in the Access Code) means an "access contract" (as that term is defined in the Access Code). When used in the context of a network which is not a "covered network" (as that term is defined in the Access Code) means any commercial arrangement through which "access" (as that term is defined in the Access Code) to that network is obtained.

**Associated Load:** Has the meaning given in clause 2.29.5G.

**Association Period:** Has the meaning given in clause 2.29.5G.

Authorised Deviation Quantity (ADQ(p,d,t)): For a Market Participant p for a given Trading Interval t, is as calculated under clause 6.17.2.

**Authorised Officer**: In respect of a Market Participant, and means:

- (a) "Officer" as defined in Section 9 of the Corporations Act; er
- (b) "executive officer" as defined in section 3(1) of the Electricity Corporations Act 2005 (WA); or
- (c) for a Market Participant that is not a body corporate, a person who is legally able to bind that Market Participant.

Available Capacity: Means, for a Trading Interval, the quantity of capacity resulting from the sum of the Capacity Credits for all Facilities of a Market Participant less the Capacity Credits subject to Outages provided under clause 7.13.1A(b).

**Availability Class**: Any one of 4 classes of annual availability of Reserve Capacity set out in clause 4.5.12(c), where each class corresponds to Reserve Capacity being available from a Facility for not more than a specified number of hours per year.

Availability Curve: A curve developed by the IMO under clause 4.5.10(e).

**Availability Declaration**: A declaration included with a STEM Submission or Standing STEM Submission and which includes the information described in clause 6.6.2A(b).

**Balancing**: The process for meeting supply and consumption deviations from contracted bilateral and STEM positions in each Trading Interval.

**Balancing Data**: A set of prices to be used in forming Dispatch Merit Orders and in settling Balancing transactions for a Trading Day as provided by a Market Participant to the IMO in a Balancing Data Submission or as Standing Balancing Data.

**Balancing Data Submission**: A submission of Balancing Data to the IMO made in accordance with clause 6.5A.

Balancing Support Contract: A contract between either the Electricity Generation Corporation or System Management and a Market Participant (other than the Electricity Generation Corporation), entered into pursuant to clause 7.6.7, that allows System Management to call upon the Facilities registered by the relevant Market Paricipant to assist System Management and the Electricity Generation Corporation in meeting their obligations under Chapter 7.

#### **Balancing Facility**: Means:

- (a) <u>for a Market Generator other than Verve Energy:</u>
  - i. each of its Scheduled Generators; and
  - ii. each of its Non-Scheduled Generators; and
- (b) <u>each Stand Alone Facility.</u>

Balancing Facility Requirements: Means the procedures developed under clause 7A.1.5.

Balancing Forecast: Means a forecast, determined by the IMO in accordance with the Balancing Forecast Market Procedures of the following:

- (a) the Relevant Dispatch Quantity for a Trading Interval in MW at the end of the Trading Interval;
- (b) the aggregate output of all Non-Scheduled Generators which are Balancing Facilities for a Trading Interval; and
- (c) the Balancing Prices for each Trading Interval during the Balancing Horizon.

<u>Balancing Forecast Market Procedures</u>: Means the procedures developed under clause <u>7A.3.18.</u>

<u>Balancing Gate Closure:</u> For a Trading Interval means the point in time immediately before the commencement of the Trading Interval determined by the IMO under clause 7A.1.14.

#### **Balancing Horizon**: Means:

- (a) from 8:00 AM the day before the Balancing Market Commencement Day and to
  6:00 PM on the Balancing Market Commencement Day, the 24 hour period
  occurring for the Trading Day (8:00 AM to 8:00 AM) of the Balancing Market
  Commencement Day; and
- (b) from 6:00 PM on the Balancing Market Commencement Day, the 38 hour period from 6:00 PM to the end of the next Trading Day, being 8:00 AM on the day after the Balancing Market Commencement Day; and

(c) from 6:00 PM every day thereafter, the 38 hour period from 6:00 PM to the end of the next Trading Day at 8:00 AM.

<u>Balancing Market</u>: Means the market operated under Chapter 7A in which Facilities, including the Verve Energy Balancing Portfolio as a single Facility, can better manage their contractual positions and meet supply and consumption deviations from contracted bilateral and STEM positions in each Trading Interval.

<u>Balancing Market Commencement Day</u>: Means the Trading Day determined by the IMO under clause 7A.1.1A.

Balancing Market Objectives: Means the objectives listed in clause 7A.1.2.

BMO or Balancing Merit Order: Means the ordered list of Balancing Facilities, and associated quantities, determined by the IMO under clause 7A.3.2.

Balancing Price: For a Trading Interval means the price determined under clause 7A.3.9.

#### **Balancing Price-Quantity Pair: Means**

- (a) for a Scheduled Generator, the specified non-Loss Factor adjusted MW quantity at which a Market Participant is prepared to operate a Balancing Facility as at the end of a Trading Interval and the non-Loss Factor Adjusted Price, in \$/MWh, the Market Participant wants to be paid to achieve that quantity by the end of that Trading Interval;
- (b) for a Non-Scheduled Generator the specified non-Loss Factor adjusted MW quantity
  at which a Market Participant is prepared to reduce its output as at the end of a
  Trading Interval and the non-Loss Factor Adjusted Price, in \$/MWh, the Market
  Participant wants to be paid to achieve that quantity by the end of that Trading
  Interval; and
- (c) for the Verve Energy Balancing Portfolio, the specified MW quantity at which Verve Energy is prepared to have the Verve Energy Balancing Portfolio dispatched at as at the end of a Trading Interval and the Loss Factor Adjusted Price, in \$/MWh, Verve Energy wants to be paid to achieve that quantity by the end of that Trading Interval from the sum of all of its Sent Out Capacity for each Facility in the Verve Energy Balancing Portfolio.

Balancing Portfolio Supply Curve: Means a ranking of the Balancing Price-Quantity Pairs provided for the Verve Energy Balancing Portfolio.

<u>Balancing Quantity</u>: Means, in respect of a Trading Interval, the quantity, if any, published to the Market Participant under clause 7A.3.16(a).

#### **Balancing Submission**: Means:

(a) for a Balancing Facility, other than the Verve Energy Balancing Portfolio, that is a:

- i. Scheduled Generator, for each Trading Interval or Trading Intervals, a ranking of Balancing Price-Quantity Pairs for each MW of its Sent Out Capacity from zero capacity to the maximum Sent Out Capacity, together with associated Ramp Rate Limit for each Trading Interval; and
- ii. Non-Scheduled Generator, for each Trading Interval or Trading Intervals,
   the Market Generator's best estimate of the quantity for the Balancing
   Price-Quantity Pair, in MW, the Facility is able to reduce its output,
   together with the associated Ramp Rate Limit for each Trading Interval;
   and
- (b) for the Verve Energy Balancing Portfolio, the Balancing Portfolio Supply Curve together with the Portfolio Ramp Rate Limit.

Balancing Data: A set of prices to be used in forming Dispatch Merit Orders and in settling Balancing transactions for a Trading Day as provided by a Market Participant to the IMO in a Balancing Data Submission or as Standing Balancing Data.

Balancing Data Submission: A submission of Balancing Data to the IMO made in accordance with clause 6.5A.

Balancing Support Contract: A contract between either the Electricity Generation Corporation or System Management and a Market Participant (other than the Electricity Generation Corporation), entered into pursuant to clause 7.6.7, that allows System Management to call upon the Facilities registered by the relevant Market Participant to assist System Management and the Electricity Generation Corporation in meeting their obligations under Chapter 7.

**Bank Bill Rate**: The rate set by the IMO:

- (a) at approximately 10:00am on any given Business Day to apply for that day; or
- (b) if the relevant day is not a Business Day, or the IMO does not set a rate for that day, on the previous Business Day on which a rate was set under paragraph (a),

(based on an industry standard market indicator, details of which must be published by the IMO).

**Bilateral Contract**: A contract formed between any two persons (excluding System Management) for the sale of electricity by one of those persons to the other.

**Bilateral Submission**: A submission by a Market Generator to the IMO made in accordance with clause 6.2.

**Business Day**: A day that is not a Saturday, Sunday, or a public holiday throughout Western Australia. For the purpose of clauses 9.16.1(b), 9.16.2(e) and 9.16.4(d), a Business Day is a day that is not a Saturday, Sunday, or a public holiday (including a bank holiday) throughout Western Australia and/or Sydney (New South Wales).

Capacity Cost Refund: Has the meaning given in clauses 4.26.3 and 4.26.3A.

Capacity Credit: A notional unit of Reserve Capacity provided by a Facility during a Capacity Year. The total number of Capacity Credits provided by a Facility is determined in accordance with clause 4.20, clause 4.28B, or clause 4.28C. Each Capacity Credit is equivalent to 1MW of Reserve Capacity. The Capacity Credits to be provided by a Facility are held by the Market Participant registered in respect of that Facility. The number of Capacity Credits to be provided by a Facility may be reduced in certain circumstances under the Market Rules, including under clause 4.25.4 or adjusted under clause 4.25.6.

**Capacity Credit Allocation**: The number of Capacity Credits allocated to a Market Participant for settlement purposes through the allocation process in clauses 9.4 and 9.5.

**Capacity Credit Allocation Submission**: A submission from a Market Participant to the IMO in accordance with clause 9.4.1.

**Capacity Year**: A period of 12 months commencing at the start of the Trading Day which commences on 1 October and ending on the end of the Trading Day ending on 1 October of the following calendar year.

**Category A**: The class of Market Rules classified as Category A Market Rules in the Regulations for the purposes of the imposition of civil penalties under the Regulations.

**Category B**: The class of Market Rules classified as Category B Market Rules in the Regulations for the purposes of the imposition of civil penalties under the Regulations.

**Category C**: The class of Market Rules classified as Category C Market Rules in the Regulations for the purposes of the imposition of civil penalties under the Regulations.

**Certified Reserve Capacity**: For a Facility, and in respect of a Reserve Capacity Cycle, is the quantity of Reserve Capacity that the IMO has assigned to the Facility for the Reserve Capacity Cycle in accordance with clause 4.11 or clause 4.28B, as adjusted under these Market Rules including clause 4.14.8. Certified Reserve Capacity assigned to a Facility registered by a Market Participant is held by that Facility.

Chief Executive Officer: In respect of a Rule Participant other than System Management, the chief executive officer of the relevant Rule Participant, or if that Rule Participant has no chief executive officer, then the individual nominated by the Rule Participant and holding a similar position to that of chief executive officer of the Rule Participant. With respect to System Management, the most senior of the persons designated by the Board of the Electricity Network Corporation Western Power as having responsibility for the management of System Management.

**Co-ordinated Universal Time:** Co-ordinated Universal Time is determined by the International Bureau of Weights and Measures and maintained under section 8AA of the National Measurement Act 1960 of the Commonwealth.

**Cold Season**: The period commencing at the start of the Trading Day beginning on 1 April and ending at the end of the Trading Day finishing on the following 1 October.

**Commercial Operation**: The status determined by the IMO under clause 4.13.10B that a Facility is operating in the Wholesale Electricity Market.

**Commissioning Test**: Has the meaning given in clause 3.21A.1.

**Commissioning Test Period:** The proposed period during which Commissioning Tests will be conducted, as provided to System Management under clause 3.21A.3.

Commitment Compensation: The amount calculated in accordance with clauses 6.18.2.

**Conditional Certified Reserve Capacity**: Has the meaning given in clause 4.9.5.

**Consequential Outage**: Has the meaning given in clause 3.21.2.

**Constrained Off Compensation Price:** Has the meaning given in clause 6.17.4(b).

<u>Constrained Off Quantity</u>: Has the meaning given in clause 6.17.4(a) or clause 6.17.4(c), as applicable.

<u>Constrained Off Verve Energy Balancing Portfolio Quantity:</u> Has the meaning given in clause 6.17.6A.

Constrained On Compensation Price: Has the meaning given in clause 6.17.3(b) or clause 6.17.5(b), as applicable.

<u>Constrained On Quantity</u>: Has the meaning given in clause 6.17.3(a) or clause 6.17.3(c), as applicable.

<u>Constrained On Verve Energy Balancing Portfolio Quantity</u>: Has the meaning given in clause 6.17.5.

Consumption Decrease Price: A price specified in <a href="items">items</a> (h)(vi), (i)(xA).3 or (i)(xA).4 of Standing Data, which must be not less than the Minimum STEM Price and not more than the Alternative Maximum STEM Price to apply in forming the <a href="Non-Balancing">Non-Balancing</a> Dispatch Merit Order for a Trading Interval for a Dispatchable Load or <a href="Demand Side Programme">Demand Side Programme</a> and in the calculation of the <a href="Non-Balancing Facility">Non-Balancing Facility</a> Dispatch Instruction Payment for that Dispatchable Load or <a href="Demand Side Programme">Demand Side Programme</a> for that Trading Interval, <a href="which varies">which varies</a>. Different values apply for Peak Trading Intervals and Off-Peak Trading Intervals.

Consumption Increase Price: A price specified in <a href="items">items</a> (h)(vi), (i)(xA).1 or (i)(xA).2 of Standing Data, which must be not less than the Minimum STEM Price, not more than the <a href="Alternative Maximum STEM Price">Alternative Maximum STEM Price</a> to apply in forming the <a href="Mon-Balancing">Non-Balancing</a> Dispatch Merit Order for a Trading Interval for a Dispatchable Load and in the calculation of the <a href="Mon-Balancing Facility">Non-Balancing</a> Facility Dispatch Instruction Payment for that Dispatchable Load for that Trading

Interval, which varies. Different values apply for Peak Trading Intervals and Off-Peak Trading Intervals.

**Contestable Customer**: A person that may purchase electrical energy from any retailer, including the Electricity Retail Corporation Synergy.

**Contracted Ancillary Service:** An Ancillary Service provided by a Rule Participant under an Ancillary Service Contract.

**Contracted Dispatch Support Service**: A Dispatch Support Service provided by a Rule Participant under an Ancillary Service Contract.

Contracted Load Following Service: A Load Following Service provided by a Rule Participant under an Ancillary Service Contract.

**Contracted Load Rejection Reserve Service:** A Load Rejection Reserve Service provided by a Rule Participant under an Ancillary Service Contract.

**Contracted Spinning Reserve Service:** A Spinning Reserve Service provided by a Rule Participant under an Ancillary Service Contract.

**Contracted System Restart Service:** A System Restart Service provided by a Rule Participant under an Ancillary Service Contract.

Corporations Act: The Corporations Act 2001 (Cwlth).

**Credit Limit**: In respect of a Market Participant, the amount determined by the IMO in accordance with clause 2.37.4.

Credit Support: Has the meaning given in clause 2.38.4.

**Cure Notice**: Has the meaning given in clause 9.23.4(a).

**Customer**: Means a person to whom electricity is sold for the purpose of consumption.

**Declared Market Project**: A major market development project declared by the IMO in accordance with clauses 2.22.13 and approved by the Economic Regulation Authority in accordance with clause 2.22.14.

**Default Levy**: The amount, in respect of a given Market Participant and in the circumstance of a particular Payment Default, determined by the IMO in accordance with clause 9.24.5.

**Demand Side Management**: A type of capacity held in respect of a Facility connected to the SWIS; specifically, the capability of a Facility connected to the SWIS to reduce its consumption of electricity through the SWIS, as measured at the connection point of the Facility to the SWIS.

**Demand Side Programme**: Means a Programme Facility registered in accordance with clause 2.29.5A.

**Demand Side Programme Capacity Cost Refund:** Has the meaning given in clause 4.26.3A.

**Demand Side Programme Load:** Has the meaning given in clause 6.16.2.

**Derogation**: An exemption or modification to the Market Rules applicable to one or more Rule Participants set out in Chapter 11 of these Market Rules.

**Dispatch Advisory**: Has the meaning given in clause 7.11.1.

**Dispatch Criteria**: Means the criteria under clause 7.6.1.

**Dispatch Instruction**: Has the meaning given in clause 7.7.1.

<u>Dispatch Order: Means an instruction by System Management under clause 7.6A for a Facility or Facilities in the Verve Energy Balancing Portfolio to vary output or consumption.</u>

**Dispatch Plan**: Means the schedule of energy and Ancillary Services to be provided, or to be available to be provided on request, by the Registered-Facilities of the Electricity Generation Corporation Verve Energy in the Verve Energy Balancing Portfolio, during a Trading Day, where thiese schedules may be revised by System Management during the course of the corresponding Scheduling Day and the Trading Day.

Dispatch Schedule: Has the meaning given in clause 6.15.1 or 6.15.2, as applicable.

**Dispatch Support**: Has the meaning given in clause 3.9.9.

**Dispatch Support Service**: Has the meaning given in clause 3.9.9.

**Dispatchable Load**: A Load, with a rated capacity of not less than 0.2 MW, through which electricity is consumed where such consumption can be increased or decreased to a specified level upon instruction to do so by System Management to the person managing the Load, and registered as such in accordance with clause 2.29.5(c).

**Dispute Participants**: The parties to a relevant dispute described in clause 2.18.2.

**Downward Deviation Administered Price (DDAP):** The amount calculated under clause 6.14.6.

<u>Downwards LFAS Backup Enablement</u>: Means the quantity, in MW, by which the sum of the output of Facilities in the Verve Energy Balancing Portfolio was reduced under clause 7B.4.1 in a Trading Interal and notified to the IMO under clause 7B.4.2.

<u>Downwards LFAS Enablement</u>: Means, for a Scheduled Generator, a Non-Scheduled Generator and the Verve Energy Balancing Portfolio, the capacity, or that part of the

capacity, in MW, in an LFAS Downwards Price-Quantity Pair selected under clause 7B.3.5(c) which is associated with that Facility or with the Verve Energy Balancing Portfolio, as applicable.

Downwards LFAS Price: Means the price determined under clause 7B.3.11.

<u>Downwards LFAS Quantity</u>: Means the quantity, in MW, by which the sum of the output of <u>LFAS Facilities is able to be reduced in a Trading Interval to provide LFAS.</u>

<u>Downwards Out of Merit Generation:</u> Has the meaning given in clauses 6.16A.3 and 6.16B.2. as applicable.

**Draft Rule Change Report**: The draft report published under clause 2.7.6(a) by the IMO in relation to a Rule Change Proposal.

**Draw Upon**: In relation to Credit Support or Reserve Capacity Security held by the IMO in relation to a Market Participant, means that the IMO:

- (a) in relation to a Security Deposit, applies the Security Deposit to satisfy amounts owing by the relevant Market Participant; or
- (b) in relation to other Credit Support, exercises its rights under the Credit Support, including by drawing or claiming an amount under it.

**Early Certified Reserve Capacity**: Reserve Capacity which is certified and assigned to a new Facility by the IMO for a future Reserve Capacity Cycle under clause 4.28C.

**Economic Regulation Authority**: The body established under section 4(1) of the Economic Regulation Authority Act, responsible under these Market Rules for market monitoring and surveillance.

**Electricity Corporations Act**: Electricity Corporations Act 2005 (WA).

**Electricity Industry Act**: Means the Electricity Industry Act 2004 (WA).

Electricity Generation Corporation: Means the body established by section 4(1)(a) of the Electricity Corporations Act.

Electricity Networks Corporation: Means the body established by section 4(1)(b) of the Electricity Corporations Act.

Electricity Retail Corporation: Means the body established by section 4(1)(c) of the Electricity Corporations Act.

**Electricity Review Board**: The Board within the meaning of the Electricity Industry Act.

**Eligible Services:** Has the meaning given in clause 4.24.3.

**Emergency Operating State**: The state of the SWIS defined in clause 3.5.1.

**Energy Market Commencement**: The date and time at which the first Trading Day commences, as published by the Minister in the Government Gazette.

**Energy Price Limits**: The set of price limits comprising the Maximum STEM Price, the Alternative Maximum STEM Price and the Minimum STEM Price.

**Environmental Approval**: In respect of a Facility is a licence, consent, certificate, notification, declaration or other authorisation required under any law relating to the protection or conservation of the environment for the lawful construction of the Facility or the development of the site on which the Facility is to be constructed.

**EOI Quantity**: Means the quantity, in MW, at which a Non-Scheduled Generator was operating as at the end of a Trading Interval, which must equal the SOI Quantity for next Trading Interval.

**Equipment Limit**: Any limit on the operation of a Facility's equipment that is provided as Standing Data for the Facility to System Management by the IMO in accordance with clause 2.34.1(b).

**Equipment Test**: has the meaning given in clause 3.21AA.1.

<u>Ex-post Downwards LFAS Enablement:</u> Means, for the end of a Trading Interval, the sum of the downwards quantities of LFAS, in MW, provided under clause 7.13.1(eAii) in that Trading Interval, less the sum of any Downwards LFAS Quantities, in MW, notified under clause 7B.2.17 for that Trading Interval.

Ex-post Upwards LFAS Enablement: Means, for the end of a Trading Interval, the sum of the upwards quantities of LFAS, in MW, provided under clause 7.13.1(e) in that Trading Interval, less the sum of any Upwards LFAS Quantities, in MW, notified under clause 7B.2.17 for that Trading Interval.

**External Constraint**: Means an event impacting the operation of the whole of the SWIS, or any significant part of it.

**Facility**: Any of the facilities described in clause 2.29.1.

Facility Classes: Any one of the classes of Facility specified in clause 2.29.1A.

Facility Reserve Capacity Deficit Refund: Has the meaning given in clause 4.26.1A.

**Facility Forced Outage Refund:** Has the meaning given in clause 4.26.1A.

Facility Reserve Capacity Deficit Refund: Has the meaning given in clause 4.26.1A.

Facility Tolerance Range: Means The amount, determined by System Management under clause 2.13.6E (b) of the Market Rules in relation to a specific Facility, by which a Market Participant may deviate from the obligations imposed on it under clause 7.10.1 or clause

3.21 before System Management must report an alleged breach of that clause under clause 2.13.6A.

**Fast Track Rule Change Process**: The process for dealing with Rule Change Proposals set out in clause 2.6.

**Final Rule Change Report**: In respect of a Rule Change Proposal to which the Fast Track Rule Change Process applies, the report published by the IMO in accordance with clause 2.6.4. In respect of a Rule Change Proposal to which the Standard Rule Change Process applies, the report published by the IMO in accordance with clause 2.7.8.

Financial Year: A period of 12 months commencing on 1 July.

**Forecast BMO**: Means a forecast of the BMO determined by the IMO in accordance with the Balancing Forecast Market Procedures.

**Forced Outage**: Has the meaning given in clause 3.21.1.

**Fuel Declaration**: A declaration included with a STEM Submission or Standing STEM Submission and which includes the information described in clause 6.6.2A(a).

**Generation Capacity Cost Refund:** Has the meaning given in clause 4.26.3.

Generation Reserve Capacity Deficit Refund: Has the meaning given in clause 4.26.1B.

**High Risk Operating State**: The state of the SWIS described in clause 3.4.

**Hot Season**: The period commencing at the start of the Trading Day beginning on 1 December and ending at the end of the Trading Day finishing on the following 1 April.

**IMO**: The Independent Market Operator, established under the Regulations to administer and operate the Wholesale Electricity Market.

**IMO Confidential**: An information confidentiality status whereby information or documents may only be made available to the parties described in clause 10.2.2(f).

**IMO Deposit Rate:** A rate equal to the rate received by the IMO for the Security Deposit. (The IMO must use reasonable endeavours to obtain a rate which reflects reasonable commercial terms as regards to other deposit rates available at the time.)

<u>IMS Interface Document Procedures</u>: Means the Market Procedures developed under <u>clause 2.36.9.</u>

Increased LFAS Quantity: Means the quantity of LFAS, in MW, which is the difference between the actual quantity of LFAS that was used in a Trading Interval referred to in clause 7B.4.1(b) and the most recent LFAS Quantity published under clause 7B.3.16(b).

**Individual Reserve Capacity Requirement**: The MW quantity determined by the IMO in respect of a Market Customer, in accordance with clause 4.28.7 and, if applicable, as revised in accordance with clause 4.28.11.

**Initial Time**: Has the meaning given in clause 4.1.25.

**Intermediate Season**: The interval commencing at the start of the Trading Day beginning on 1 October and ending at the end of the Trading Day finishing on the following 1 December of the same year.

**Intermittent Generator**: A Non-Scheduled Generator that cannot be scheduled because its output level is dependent on factors beyond the control of its operator (e.g. wind).

Intermittent Load: A type of Load defined under clause 2.30B.1.

**Intermittent Load Refund**: Has the meaning given in clause 4.28A.1.

Internal Constraint: In relation to a Facility, means an event that is not an External Constraint and which adversely impacts the Sent Out Capacity of the Facility.

**Interruptible Load**: A Load through which electricity is consumed, where such consumption can be curtailed automatically in response to a change in system frequency, and registered as such in accordance with clause 2.29.5(a).

Interval Meter Deadline: The date determined in accordance with clause 9.16.2(a).

**Invoice:** An invoice requesting payment for transactions under these Market Rules issued under Chapter 9. An Invoice may relate to STEM Settlement Statements, Non-STEM Settlement Statements or adjusted Settlement Statements.

**Invoicing Date**: The Business Day, determined in accordance with clauses 9.16.1(a), 9.16.2(d) or 9.16.4(c), on which the IMO must release Invoices for STEM Settlement Statements for a Trading Week, Non-STEM Settlement Statements for a Trading Month and the Adjustment Process respectively.

**Key Project Dates**: Means the dates most recently provided to the IMO under clause 4.10.1(c)(iii) or in reports provided under clause 4.27.10.

Liquid Fuel: Means distillate, fuel oil, liquid petroleum gas, or liquefied natural gas.

Liquid Supply Decrease Price: A price specified in Balancing Data to apply in forming the Dispatch Merit Order for a Trading Interval for a Scheduled Generator declared to be operating on Liquid Fuel and in the calculation of the Dispatch Instruction Payment for that Scheduled Generator when declared to be operating on Liquid Fuel during that Trading Interval. Different values apply for Peak Trading Intervals and Off-Peak Trading Intervals.

Liquid Supply Increase Price: A price specified in Balancing Data to apply in forming the Dispatch Merit Order for a Trading Interval for a Scheduled Generator declared to be

operating on Liquid Fuel and in the calculation of the Dispatch Instruction Payment for that Scheduled Generator when declared to be operating on Liquid Fuel during that Trading Interval. Different values apply for Peak Trading Intervals and Off-Peak Trading Intervals.

**LFAS Backup Enablement**: Means Upwards LFAS Backup Enablement and Downwards LFAS Backup Enablement.

<u>LFAS Downwards Merit Order:</u> Means the ordered list of LFAS Facilities determined by the <u>IMO under clause 7B.3.3.</u>

<u>LFAS Downwards Price-Quantity Pair</u>: Means for an LFAS Facility and for the Verve Energy Balancing Portfolio:

- (a) the specified non-Loss Factor adjusted MW quantity by which a Market Participant is prepared to decrease the output of the LFAS Facility, or the Verve Energy Balancing Portfolio, as applicable, within a Trading Interval;
- (b) the non-Loss Factor Adjusted Price, in \$/MW, the Market Participant wants to be paid to have that quantity available within that Trading Interval; and
- (c) the Steady State LFAS Base Point of the LFAS Facility to achieve that quantity.

#### LFAS Facility: Means:

- (a) a Facility that a Market Participant has indicated in Appendix 1(j)(i) of Standing Data is intended to participate in the LFAS Market; and
- (b) for a Market Participant other than Verve Energy, each Scheduled Generator and

  Non-Scheduled Generator for which LFAS Standing Data has been accepted by the

  IMO; or
- (c) each Stand Alone Facility for which LFAS Standing Data has been accepted by the IMO.

<u>LFAS Facility Requirements</u>: Means the Market Procedures developed under clause 7B.1.2.

LFAS Gate Closure: Means, for the 12 Trading Intervals in an LFAS Horizon, the point in time which is 3 hours immediately before the Balancing Gate Closure for the first of those Trading Intervals

## **LFAS Horizon**: Means:

(a) from the day before the Balancing Market Commencement Day and to 4:00 AM on the Balancing Market Commencement Day, the 6 hour period from 8:00 AM to 2:00 PM occurring on the Trading Day of the Balancing Market Commencement Day;

- (b) on and from 10:00 AM on the Balancing Market Commencement Day, the 6 hour period from 2:00 PM to 8:00 PM occurring on the Trading Day of the Balancing Market Commencement Day;
- (c) on and from 4:00 PM the day after the Balancing Market Commencement Day, the 6 hour period from 8:00 PM to 2:00 AM occurring on the Trading Day which is the day after the Balancing Market Commencement Day;
- (d) on and from 10:00 PM the day after the Balancing Market Commencement Day, the
   6 hour period from 2:00 AM to 8:00 AM occurring on the Trading Day which is two
   days after the Balancing Market Commencement Day;
- (e) on and from 2:30 AM each subsequent Trading day, the 6 hours from 8:00 AM the beginning of the next Trading Day to 2:00 PM that Trading Day;
- (f) on and from 8:30 AM each subsequent Trading Day, the 6 hour period from 2:00 PM of that Trading Day to 8:00 PM that Trading Day;
- (g) on and from 2:30 PM each subsequent Trading Day, the 6 hours from 8:00 PM of that Trading Day to 2:00 AM that Trading Day; and
- (h) on and from 9:30 PM each subsequent Trading Day, the 6 hour period 2:00 AM of that Trading Day to 8:00 AM the next Trading Day.

**LFAS Market**: Means the market operated under Chapter 7B in which Facilities, including the Verve Energy Balancing Portfolio as a single Facility, can provide Load Following Services.

**LFAS Merit Order**: Means the LFAS Downwards Merit Order and/or the LFAS Upwards Merit Order, as applicable.

**LFAS Price**: Means the Downwards LFAS Price and/or the Upwards LFAS Price as applicable.

LFAS Price-Quantity Pair: Means an LFAS Upwards Price-Quantity Pair and/or an LFAS Downwards Price-Quantity Pair, as applicable.

#### LFAS Quantity: Means:

- (a) the Upwards LFAS Quantity; and
- (b) the Downwards LFAS Quantity.

**LFAS Quantity Balance**: Means the quantity of LFAS, in MW, referred to in clause 7B.4.1(a) which an LFAS Facility has failed to provide.

**LFAS Standing Data**: Means the Standing Data in Appendix 1(j)(ii).

### **LFAS Submission**: Means:

- (a) for an LFAS Facility that is a:
  - Scheduled Generator, for a Trading Interval or Trading Intervals, a
     ranking of LFAS Price-Quantity Pairs for each MW of capacity which the
     Market Participant wants to offer for LFAS for each Trading Interval; and
  - ii. Non-Scheduled Generator, for a Trading Interval or Trading Intervals, the

    Market Generator's best estimate of the quantity for the LFAS PriceQuantity Pair, in MW, the Facility is able to reduce its output for each

    Trading Interval; and
- (b) for the Verve Energy Balancing Portfolio for a Trading Interval or Trading Intervals, a ranking of LFAS Price-Quantity Pairs for each MW of capacity which the Market Participant wants to offer for LFAS for each Trading Interval.

<u>LFAS Upwards Merit Order</u>: Means the ordered list of LFAS Facilities determined by the <u>IMO under clause 7B.3.2.</u>

<u>LFAS Upwards Price-Quantity Pair</u>: Means for the Verve Energy Balancing Portfolio, an LFAS Facility which is a Scheduled Generator or Non-Scheduled Generator:

- (a) the specified non-Loss Factor adjusted MW quantity by which a Market Participant is prepared to increase the output of a LFAS Facility, or the Verve Energy Balancing Portfolio, as applicable, within a Trading Interval;
- (b) the non-Loss Factor Adjusted Price, in \$/MW, the Market Participant wants to be paid to have that quantity available within that Trading Interval; and
- (c) the Steady State LFAS Base Point of the LFAS Facility to achieve that quantity.

**Load**: Has the meaning given in clause 2.29.1(d).

**Load Following** Ancillary Service or LFAS: Has the meaning given in clause 3.9.1.

**Load Forecast**: An expectation of the demand levels in the SWIS or in a region of the SWIS in future Trading Intervals.

Load Rejection Reserve Quantity: Means, for a Trading Interval, the quantity of energy, in MWh, provided by a Facility as a Load Rejection Reserve Response.

Load Rejection Reserve Event: Means a contingency event which causes System

Management to activate a Facility in the Verve Energy Balancing Portfolio so that it provides a Load Rejection Reserve Response.

<u>Load Rejection Reserve Response</u>: Means a Load Rejection Reserve response by a Facility in accordance with clause 3.9.7.

**Load Rejection Reserve Service**: Has the meaning given in clause 3.9.6.

**Local Black Start Procedures:** The procedures developed under clause 3.7.4, by each Scheduled Generator and Non-Scheduled Generator in accordance with the guidelines published by System Management under clause 3.7.3.

**Long Term PASA**: A PASA study conducted in accordance with clause 4.5 in order to determine the Reserve Capacity Target for each year in the Long Term PASA Study Horizon and prepare the Statement of Opportunities Report for a Reserve Capacity Cycle.

**Long Term PASA Study Horizon**: The ten year period commencing on 1 October of Year 1 of a Reserve Capacity Cycle.

**Long Term Special Price Arrangement**: A Special Price Arrangement that applies for more than one Reserve Capacity Cycle.

**Loss Factor**: A factor defining the annual average marginal network loss between any given node and the Reference Node where the Loss Factor at the Reference Node is 1, determined in accordance with clause 2.27.2, and includes the Portfolio Loss Factor.

**Loss Factor adjusted**: In respect of a quantity of electricity, means that quantity multiplied by any applicable Loss Factor.

Loss Factor Adjusted Price: Means, in respect of any price, that price multiplied by any applicable Loss Factor but any resulting price exceeding the Price Caps, must be adjusted down to the relevant Price Cap.

Margin Call: The amount determined in accordance with clause 2.42.3.

**Margin Call Notice**: A notification by the IMO to a Market Participant that the Market Participant's Trading Margin has dropped below zero, and requiring the payment of a Margin Call.

Marginal Cost Administered Price (MCAP): The dollar per MWh price calculated in accordance with clause 6.14.2.

**Market Advisory**: Has the meaning given in clause 6.19.1.

**Market Advisory Committee**: An advisory body to the IMO comprised of industry representatives established under clause 2.3.1.

**Market Auditor**: An auditor appointed by the IMO under clause 2.14.1.

**Market Customer**: A Rule Participant registered as a Market Customer under clauses 2.28.10, 2.28.11 or 2.28.13.

**Market Fees**: The fees determined by the IMO in accordance with clauses 2.24, and calculated for each Market Participant in accordance with clause 9.13.1.

**Market Generator**: A Rule Participant registered as a Market Generator under clauses 2.28.6, 2.28.7, 2.28.8 or 2.28.13.

**Market Participant**: A Rule Participant that is a Market Generator or a Market Customer.

**Market Procedure**: The procedures developed by IMO and System Management in accordance with clause 2.9, (including the Power System Operation Procedures developed by System Management) as amended in accordance with the Procedure Change Process.

**Market Rules**: These rules relating to the Wholesale Electricity Market and to the operation of the SWIS.

**Market Surveillance Data Catalogue**: The catalogue developed by the IMO under clause 2.16.2.

**Market Web Site**: Has the meaning given in the Regulations, and includes any website operated by the IMO to carry out its functions under these Market Rules.

**Maximum Consumption Capability**: For each Market Participant is as calculated in accordance with clause 6.3A.2(b).

**Maximum Reserve Capacity Price**: In respect of a given Reserve Capacity Cycle, the price in clause 4.16.2 as revised in accordance with clause 4.16.

**Maximum STEM Price**: The price determined in accordance with clause 6.20.2 as the maximum price that may be associated with a Portfolio Supply Curve for a portfolio including no Facilities expected to run on Liquid Fuel forming part of a STEM Submission or Standing STEM Submission.

**Maximum Supply Capability**: For each Market Participant is as calculated in accordance with clause 6.3A.2(a).

<u>Maximum Theoretical Energy Schedule</u>: Means the schedule determined under clause 6.15.1.

**Medium Term PASA**: A PASA study conducted in accordance with clause 3.16 in order to assist System Management in determining Ancillary Service Requirements, outage planning for Registered Facilities and also assessing the availability of Facilities in respect of which Capacity Credits are held.

**Metered Balancing Quantity**: Has the meaning given in clause 6.17.2.

**Meter Data Submission**: A submission of meter data by a Metering Data Agent to the IMO in accordance with clause 8.4.

**Meter Dispute**: Has the meaning given in clause 8.6.1(e).

**Meter Registry**: A registry maintained by a Metering Data Agent containing information about meters and the persons with which those meters are associated including the information listed in clause 8.3.1.

**Metered Schedule**: Has the meaning given in clause 9.3.4.

Metering Data Agent: The person identified under clause 8.1.2 or clause 8.1.4.

**Metering Protocol**: A combination of the Metering Data Rules as specified by the Economic Regulation Authority and a Network Operator's metering requirements as a condition of access. The metering requirement means in the context of a "covered network" (as that term is defined in the Access Code) the "Metering Rules" as defined in the Access Code while when used in the context of a network which is not a "covered network" (as that term is defined in the Access Code) means any commercial arrangement for metering energy. The definition of the Metering Protocol is subject to finalisation of the Metering Rules arrangements.

Minimum Frequency Keeping Capacity: Has the meaning given in clause 3.10.1(a).

Minimum LFAS Quantity: Means the minimum quantity of LFAS that may be specified in an LFAS Price-Quantity Pair, as determined by System Management in accordance with clause 7B.1.2(a), and which is published by the IMO on the Market Web Site.

Minimum STEM Price: Means negative \$1,000.00 per MW. The price determined in accordance with clause 6.20.4 as the minimum price that may be associated with a Portfolio Supply Curve or a Portfolio Demand Curve forming part of a STEM Submission or Standing STEM Submission.

<u>Minimum Theoretical Energy Schedule</u>: Means the schedule determined under clause 16.5.2.

**Minister**: The Minister responsible for administering the Electricity Industry Act.

**Monitoring and Reporting Protocol**: The procedure developed by System Management and approved by the IMO in accordance with clauses 2.15.4 and 2.15.7 and, if applicable, as amended in accordance with clauses 2.9 and 2.10.

**Monitoring Protocol**: The procedure developed by the IMO in accordance with clause 2.15.1, 2.15.7 and, as amended from time to time in accordance with clauses 2.9 and 2.10.

**Monthly Reserve Capacity Price**: The dollar per megawatt per Trading month price calculated in accordance with clause 4.29.1.

**Monthly Special Reserve Capacity Price**: The dollar per megawatt per Trading Month price calculated in accordance with clause 4.29.2.

MW: Means megawatt.

**MWh**: Means megawatt hour.

**Net Bilateral Position**: Means in relation to a Market Participant, the amount calculated under clause 6.9.2.

**Net Contract Position**: In respect of a Market Participant for a Trading Interval is calculated in accordance with clause 6.9.13.

**Net STEM Refund:** Has the meaning given in clause 4.26.3.

**Net STEM Shortfall:** Has the meaning given in clause 4.26.2.

**Network**: A transmission system or distribution System registered as a Network under clause 2.29.3.

**Network Control Service**: Has the meaning given in clause 5.1.1.

**Network Control Service Contract**: A contract between a Network Operator and a Market Participant to provide a Network Control Service.

**Network Operator**: A person who registers as a Network Operator, in accordance with clauses 2.28.2, 2.28.3 or 2.28.4.

Non-Balancing Dispatch Merit Order: An ordered list of Scheduled Generators, Demand Side Programmes and Dispatchable Loads registered by Market Participants, other than the Electricity Generation Corporation Verve Energy, determined by the IMO in accordance with clause 6.12.1\_;indicating the order in which those Scheduled Generators and Dispatchable Loads should receive Dispatch Instructions from System Management in the circumstances to which the relevant Dispatch Order applies.

Non-Balancing Facility Dispatch Instruction Payment (DIP): Has the meaning given in clause 6.17.6.

Non-Balancing Facility: Means a Registered Facility that is not a Balancing Facility.

**Non-Business Day**: A day that is a Saturday, Sunday, or a public holiday throughout Western Australia.

Non-Dispatchable Load: A Load which is not a Dispatchable Load or an Interruptible Load.

Non-Liquid Fuel: Means all fuels other than Liquid Fuel.

Non-Qualifying Constrained On Generation: Has the meaning given in clause 6.17.3(e).

Non-Qualifying Constrained Off Generation: Has the meaning given in clause 6.17.4(e).

Non-Liquid Supply Decrease Price: A price specified in Balancing Data to apply in forming the Dispatch Merit Order for a Trading Interval for a Scheduled Generator declared to be operating on Non-Liquid Fuel and in the calculation of the Dispatch Instruction Payment for

that Scheduled Generator when declared to be operating on Non-Liquid Fuel during that Trading Interval. Different values apply for Peak Trading Intervals and Off-Peak Trading Intervals.

Non-Liquid Supply Increase Price: A price specified in Balancing Data to apply in forming the Dispatch Merit Order for a Trading Interval for a Scheduled Generator declared to be operating on Non-Liquid Fuel and in the calculation of the Dispatch Instruction Payment for that Scheduled Generator when declared to be operating on Non-Liquid Fuel during that Trading Interval. Different values apply for Peak Trading Intervals and Off-Peak Trading Intervals.

**Non-Scheduled Generator**: A generation system that can be self-scheduled by its operator (with the exception that System Management can require it to decrease its output subject to its physical capabilities) and which is registered as a Non-Scheduled Generator in accordance with clause 2.29.4(a) or (d).

**Non-STEM Settlement Date**: The Business Day, determined under clause 9.16.2(e), on which the IMO issues Non-STEM Settlement Statements relating to a Trading Month.

**Non-STEM Settlement Statement**: A settlement statement for a Trading Month containing the information described in clause 9.18.3.

**Non-STEM Settlement Statement Date**: Has the meaning given in clause 9.16.2(c).

**Non-STEM Settlement Disagreement Deadline**: Has the meaning given in clause 9.16.2(f).

**Non-Temperature Dependent Load**: A Load accepted by the IMO as a Non-Temperature Dependent Load under clause 4.28.9.

**Normal Operating State**: The state of the SWIS defined in clause 3.3.1.

**Notice of Disagreement**: A notice issued by a Market Participant under any of clause 9.17.3, clause 9.18.4 or clause 9.19.5, to the IMO indicating a disagreement with either a STEM Settlement Statement or a Non-STEM Settlement Statement.

**Notice of Dispute**: A notice issued under clause 2.19.1 and containing the information described in clause 2.19.3.

**Notional Wholesale Meter**: A notional interval meter quantity associated with a Market Customer's aggregate consumption not metered by Trading Interval. This value will be an estimate produced by the IMO.

Off-Peak Trading Interval: A Trading Interval occurring between 10 PM and 8 AM.

<u>Operating Instruction</u>: Means an instruction issued by System Management requiring a <u>Facility to increase or decrease its output or decrease its consumption to meet the</u> requirements of:

- (a) a Network Control Service Contract;
- (b) an Ancillary Service Contract;
- (c) a Test under these Market Rules;
- (d) a Supplementary Capacity Contract; or
- (e) Ancillary Services, other than LFAS, to be provided by Facilities other than Facilities in the Verve Energy Balancing Portfolio.

<u>Operating State:</u> Means an Emergency Operating State, a High Risk Operating State or a Normal Operating State.

Operational System Load Estimate: Has the meaning given in clause 6.14.4(a).

**Opportunistic Maintenance**: Has the meaning given in clause 3.19.2.

Outage: Means a Forced Outage, a Planned Outage or a Consequential Outage, as applicable.

**Outage Contingency Plan**: Part of an Outage Plan specifying contingency plans for returning the relevant item of equipment to service before the time when the outage or derating is planned to finish.

**Outage Plan**: Has the meaning given in clause 3.18.4A and includes a revised Outage Plan submitted under clause 3.18.9.

Out of Merit: Means dispatch of a Balancing Facility for quantities greater than that specified in the BMO or in which the Ramp Rate Limit is taken into account, other than in the order in which the Balancing Facility appears in the Balancing Merit Order.

Outstanding Amount: The amount calculated in accordance with clause 2.40.1.

PASA: See Projected Assessment of System Adequacy.

**Parasitic Load**: Energy consumption that occurs behind the connection point at which a generation system is connected to the Network, and which consequently reduces the energy sent-out by the generation system relative to the energy actually generated by the generation system.

**Payment Default**: Any failure to make a payment in respect of an Invoice in accordance with clause 9.22 or 9.24.7 or pay any other amount owing under these Market Rules by the time it is due.

Peak Trading Interval: A Trading Interval occurring between 8 AM and 10 PM.

Planned Outage: Has the meaning given in clause 3.19.11.

**Planning Criterion**: Has the meaning given in clause 4.5.9.

Portfolio Constrained Off Compensation Price: Has the meaning given in clause 6.17.6A(b).

Portfolio Constrained On Quantity: Has the meaning given in clause 6.17.5(a).

**Portfolio Demand Curve**: A curve describing the STEM Price at which a Market Participant will purchase different levels of energy from the market having the form given in clause 6.6.2A(e).

Portfolio Downwards Out of Merit Generation: Means the amount calculated in accordance with clause 6.16B.2.

<u>Portfolio Loss Factor</u>: For each Trading Interval = sum(Facility(i) Sent Out Metered Schedule x Loss Factor (i))/sum (Facility (i) Sent Out Metered Schedule).

Portfolio Ramp Rate Limit: Means Verve Energy's best estimate, on a linear basis, of the Verve Energy Balancing Portfolio's physical ability to increase or reduce its output from the commencement of a Trading Interval to the end of the Trading Interval.

Portfolio Settlement Tolerance: Has the meaning given in clause 6.17.10.

**Portfolio Supply Curve**: A curve describing the STEM Price at which a Market Participant will provide the market with different levels of energy supply having the form given in clause 6.6.2A(d).

Portfolio Upwards Out of Merit Generation: Means the amount calculated in accordance with 6.16B.1.

**Power System Adequacy**: The ability of the SWIS to supply all demand for electricity in the SWIS at the time, allowing for scheduled and unscheduled outages of generation, transmission and distribution equipment and secondary equipment.

Power System Operation Procedure: See Market Procedure.

**Power System Reliability**: The ability of the SWIS to deliver energy within reliability standards while maintaining Power System Adequacy and Power System Security.

**Power System Security**: The ability of the SWIS to withstand sudden disturbances, including the failure of generation, transmission and distribution equipment and secondary equipment.

Price Cap: Means:

(a) a maximum price of:

- i. for a Balancing Facility to run on Non-Liquid Fuel, the Maximum STEM Price;
   or
- ii. for a Balancing Facilityies to run on Liquid Fuel, the Alternative Maximum
  STEM Price; and
- (b) a minimum price of the Minimum STEM Price.

**Price-Quantity Pair**: In the context of Reserve Capacity Offers, Supply Portfolio Curves and STEM Offers, a quantity that will be provided to the IMO by a Market Participant for a price equalling or exceeding the specified price. In the context of Demand Portfolio Curves and STEM Bids, a quantity that will be purchased from the IMO by a Market Participant for a price equalling or less than the specified price.

**Pricing BMO**: Means the Balancing Merit Order adjusted:

- (a) to take into account the associated Ramp Rate Limits to reflect the physically achievable capacity of the Balancing Facility given the SOI Quantity; and
- (b) for Non-Scheduled Generators, the EOI Quantity.

**Procedure Amendment**: The specific wording of a proposed or accepted change to a Market Procedure.

**Procedure Change Process**: The process for amending a Market Procedure as set out in clauses 2.10 and 2.11.

**Procedure Change Proposal**: A proposal developed by the IMO or System Management to initiate a Procedure Change Process.

**Procedure Change Report**: A final report prepared by the IMO or System Management in relation to a Procedure Change Proposal, containing the information described in clause 2.10.13.

**Procedure Change Submission**: A submission made in relation to a Procedure Change Proposal submitted in accordance with clause 2.10.7.

**Projected Assessment of System Adequacy (PASA):** A forecasting study, undertaken by the IMO in the case of a Long Term PASA, and undertaken by System Management in the case of a Short Term PASA and a Medium Term PASA.

**Protected Provision**: A chapter or clause of the Market Rules, identified in clause 2.8.13.

**Provisional Balancing Price**: Means the price determined under clause 7A.3.7(b).

<u>Provisional Pricing BMO</u>: Means the provisional Pricing BMO determined under clause 7A.3.7(a).

**Prudential Obligations**: In respect of a Market Participant, the obligations set out in clauses 2.37 to 2.43.

**Public**: When used in reference to information confidentiality, an-information confidentiality status whereby information or documents that is not confidential and may be made available to any person.

Ramp Rate Limit: Means the Market Participant's best estimate, on a linear basis, of a Facility's physical ability to increase or reduce its output from the commencement of a Trading Interval.

**Ready Reserve Standard**: Has the meaning given in clause 3.18.11A.

Reassessment Fee: A fee determined by the IMO under clause 2.24.2.

**Reference Node**: The Muja 330 bus-bar (relative to which Loss Factors are defined).

Refund Table: The table titled "Refund Table" and set out in Chapter 4.

**Registered Facility**: In respect of a Rule Participant, a Facility registered by that Rule Participant with the IMO under Chapter 2.

**Regulations**: Any regulations made under the Electricity Industry Act 2004 (WA) but excluding the Electricity Industry (Wholesale <u>Electricity</u> Market) Regulations 2004 (WA).

**Regulator Fees**: The fees determined by the IMO in accordance with clause 2.24, and payable by Market Participants for the services provided by the Economic Regulation Authority in undertaking its Wholesale Electricity Market related functions and other functions under these Market Rules.

**Relevant Demand:** The consumption of a Demand Side Programme as determined in clause 4.26.2CA. Relevant Demand is used to determine Reserve Capacity shortfalls.

Relevant Dispatch Quantity: Means, for a Trading Interval, the quantity determined under clause 7A.3.6(b).

Relevant Level: Has the meaning provided in clause 4.11.3A.

Relevant Quantity: Has the meaning given in clause 6.14.4(d).

Relevant Settlement Statements: Has the meaning given in clause 9.16.3A.

**Repaid Amount:** Has the meaning given in clause 9.24.2(a).

**Representative:** In relation to a person means a representative of that person, including an employee, agent, officer, director, auditor, adviser, partner, consultant, joint venturer or subcontractor, of that person.

**Request for Expression of Interest**: In respect of a Reserve Capacity Cycle, the request for expression of interest made available in accordance with clause 4.2.2.

**Required Level**: The level of output (expressed in MW) required to be met by a Facility as determined in clause 4.11.3B.

Reserve Capacity: Capacity associated with a Facility. Capacity may be:

- (a) the capacity of generation Systems to generate electricity and send it out into a network forming part of the SWIS; or
- (b) Demand Side Management, being the capability of a Facility registered by the Market Customer at a connection point to a Network forming part of the SWIS to reduce the consumption of electricity at that connection point.

**Reserve Capacity Auction**: The process for determining the Reserve Capacity Price for a Reserve Capacity Cycle and the quantity of Reserve Capacity scheduled by the IMO for each Market Participant under clause 4.19.

**Reserve Capacity Auction Requirement**: The quantity of Reserve Capacity calculated in accordance with clause 4.15.2(b), which is the target quantity to be procured in a Reserve Capacity Auction.

Reserve Capacity Cycle: The cycle of events described in clause 4.1.

**Reserve Capacity Deficit:** Has the meaning given in clause 4.26.1A.

**Reserve Capacity Information Pack**: A package of information, including the information described in clause 4.7.3, pertaining to a Reserve Capacity Auction.

Reserve Capacity Mechanism: Chapter 4 of the Market Rules.

**Reserve Capacity Obligations**: For a Market Participant holding Capacity Credits, determined in accordance with clause 4.12.1, clause 4.28B or clause 4.28C.

**Reserve Capacity Obligation Quantity**: The specific amount of capacity required to be provided in a Trading Interval as part of a Reserve Capacity Obligation set by the IMO in accordance with clauses 4.12.4 and 4.12.5 or clauses 4.28B or 4.28C as adjusted from time to time in accordance with these Market Rules, including under clause 4.12.6.

**Reserve Capacity Offer**: A submission from a Market Participant to the IMO, in the format and including the information described in clause 4.18.1.

**Reserve Capacity Price**: In respect of a Reserve Capacity Cycle, the price for Reserve Capacity determined in accordance with clause 4.29.1 and multiplied by 12, where this price is expressed in units of dollars per megawatt per year and has a value between zero and the Maximum Reserve Capacity Price.

Reserve Capacity Requirement: Has the meaning given in clause 4.6.1.

**Reserve Capacity Security**: The reserve capacity security to be provided for a Facility as calculated and re-calculated under clause 4.13 and clause 4.28C.

**Reserve Capacity Target**: In respect of a Capacity Year, the IMO's estimate of the total amount of generation or Demand Side Management capacity required in the SWIS to satisfy the Planning Criterion for that Capacity Year determined in accordance with clause 4.5.10(b).

#### Reserve Capacity Test: Means a test for Reserve Capacity under clause 4.25.

**Resource Plan**: A detailed schedule for all Trading Intervals in a relevant Trading Day, based on a Resource Plan Submission containing the information in clause 6.11 accepted by the IMO under clause 6.5.2 (as part of an accepted Resource Plan Submission) or set in accordance with clause 6.5.4 (in the case of a default Resource Plan).

**Resource Plan Submission**: A submission by a Market Participant to the IMO made in accordance with clause 6.5.

**Review Period**: In the case of the first Review Period, the 3 year period commencing on 1 July in the calendar year following the calendar year in which Energy Market Commencement occurs. For each subsequent Review Period, the 3 year period commencing on the third anniversary of the commencement of the previous Review Period.

**Reviewable Decision**: Decisions made by the IMO in respect of which an eligible person may apply to the Electricity Review Board in accordance with section 125 of the Electricity Industry Act and the Regulations, and does not include any decisions of a class specified for this purpose in the Regulations under section 125 of that Act.

**Rule Change Proposal**: A proposal made in accordance with clause 2.5 proposing that the IMO make Amending Rules.

**Rule Participant**: Any person registered as a Rule Participant in accordance with Chapter 2, the IMO and System Management.

Rule Participant Dispatch Restricted: An information confidentiality status whereby information or documents may only be made available to the parties described in clause 10.2.2(d).

Rule Participant Market Restricted: An information confidentiality status whereby information or documents may only be made available to the parties described in clause 10.2.2(c).

**Scheduled Generator**: A generation system that can increase or decrease the quantity of electricity it generates and sends out into a network forming part of the SWIS (subject to limits on its physical capabilities) in response to instructions from System Management and is registered as such in accordance with clause 2.29.4(b) and (c).

**Scheduled Outages**: Has the meaning given in clause 3.19.1.

Scheduled System Load: Has the meaning given in clause 6.14.4(c).

**Scheduling Day**: In respect of a Trading Day, the calendar day immediately preceding the calendar day on which the Trading Day commences.

**Season:** As the context requires, any of the Cold Season, Intermediate Season or Hot Season.

**Secretariat**: The secretariat of the Market Advisory Committee.

**Security Deposit**: Has the meaning given in clause 2.38.4(b).

**Security Limit**: Any technical limit on the operation of the SWIS as a whole, or a region of the SWIS, necessary to maintain the Power System Security, including both static and dynamic limits.

# **Sent Out Capacity**: Means:

- (a) for a Balancing Facility, other than the Verve Energy Balancing Portfolio, that is a:
  - i. Scheduled Generator, the capacity provided as the Standing Data in Appendix 1(b)(iii); and
  - ii. Non-Scheduled Generator, the capacity provided as the Standing Data in Appendix 1(e)(iiiA); and
- (b) for the Verve Energy Balancing Portfolio, the sum of all of the Standing Data in Appendix 1(b)(iii) and Appendix 1(e)(iiiA) for each Facility in the Verve Energy Balancing Portfolio.

<u>Sent Out Metered Schedule</u>: Means the Metered Schedule converted to sent out MWh guantities using applicable Loss Factors.

**Service Fee Settlement Amount**: Has the meaning given in clause 9.15.

Facility Dispatch Settlement Tolerance: The quantity by which the Metered Schedule of a Scheduled Generator registered by a Market Participant other than the Electricity Generation Corporation can deviate from the Dispatch Schedule for that Scheduled Generator before the Upward Deviation Administered Price (UDAP) or the Downward Deviation Administered Price (DDAP) will be applied to that deviation in settlement as determined under clause 6.17.9.

**Settlement Statement**: A STEM Settlement Statement, a Non-STEM Settlement Statement, an adjusted STEM Settlement Statement or an adjusted Non-STEM Settlement Statement.

**Shareholding Minister**: The Minister responsible for administering the Electricity Corporation Act.

**Short Term Energy Market (STEM):** A forward market operated under Chapter 6 in which Market Participants can purchase electricity from, or sell electricity to, the IMO.

Short Term PASA: A PASA study conducted in accordance with clause 3.17.

**Short Term Special Price Arrangement**: A Special Price Arrangement that applies for not more than one Reserve Capacity Cycle.

**SOI Quantity**: Means the quantity, in MW, at which a Balancing Facility was operating as at the start of a Trading Interval.

**South West interconnected system (SWIS)**: Has the meaning given in the Electricity Industry Act.

**Special Price Arrangement**: An arrangement under clause 4.21 or 4.22 whereby a Market Participant can secure a price for Reserve Capacity that may differ from the Reserve Capacity Price.

**Special Reserve Capacity Price**: The dollar per megawatt per year price applicable to Capacity Credits held by a Market Participant in respect of a Registered Facility and subject to a Special Price Arrangement.

**Spinning Reserve**: Supply capacity held in reserve from synchronised Scheduled Generators, Dispatchable Loads or Interruptible Loads, so as to be available to support the system frequency in the event of an outage of a generating works or transmission equipment or to be dispatched to provide energy as allowed under these Market Rules.

<u>Spinning Reserve Event:</u> Means a contingency event which causes System Management to activate a Facility in the Verve Energy Balancing Portfolio so that it provides a Spinning Reserve Response.

Spinning Reserve Quantity: Means the quantity of Spinning Reserve specified in clause 6.16B.1(b)ii.3.

<u>Spinning Reserve Response:</u> Means a Spinning Reserve response by a Facility in accordance with clause 3.9.3.

<u>Spinning Reserve Response Quantity</u>: Means, for a Trading Interval, the quantity of energy, in MWh, provided by a Facility as a Spinning Reserve Response.

**Spinning Reserve Service:** Has the meaning given in clause 3.9.2.

<u>Stand Alone Facility</u>: Means a Facility that is accepted by the IMO under clause 7A.4 as a Stand Alone Facility.

**Standard Rule Change Process**: The process for dealing with Rule Change Proposals set out in clause 2.7.

**Standing Balancing Data**: Balancing Data stored by the IMO reflecting the information described in Appendix 1 provided to the IMO in accordance with clause 2.33.3(c)(x) or clause 2.34.

**Standing Bilateral Submission**: A submission by a Market Generator to the IMO made in accordance with clause 6.2A.

**Standing Data**: Data maintained by the IMO under clause 2.34.1.

**Standing Resource Plan**: A submission related in Resource Plans by a Market Generator to the IMO made in accordance with clause 6.5C.

**Standing STEM Submission**: A submission by a Market Participant to the IMO made in accordance with clause 6.3C.

**Statement of Corporate Intent**: The statement of corporate intent as agreed by the Minister or otherwise deemed to apply by Division 2 of Part 5 of the Electricity Corporations Act.

**Statement of Opportunities Report**: A report prepared in accordance with clause 4.5.13 presenting the results of the Long Term PASA study, including a statement of required investment if Power System Security and Power System Reliability are to be maintained.

STEM: See Short Term Energy Market.

**STEM Auction**: The process, described in clause 6.9, used to clear the STEM.

**STEM Bid**: A bid to purchase energy from the IMO via the STEM Auction for a Trading Interval.

**STEM Clearing Price**: Has the meaning given in clause 6.9.7.

**STEM Clearing Quantity**: Has the meaning given in clause 6.9.8.

**STEM Invoice**: An Invoice issued in accordance with clause 9.16.1(a)(ii).

**STEM Offer**: An offer to provide energy through the STEM Auction for a Trading Interval determined by the IMO in accordance with clause 6.9.3.

**STEM Settlement Date**: The date determined in accordance with clause 9.16.1(b) for settling transactions covered by STEM Settlement Statements.

**STEM Settlement Disagreement Deadline**: The time determined in accordance with clause 9.16.1(c) by which Notices of Disagreement concerning a STEM Settlement Statement for a Trading Week must be submitted to the IMO.

**STEM Settlement Statement**: A settlement statement for STEM transactions during a Trading Day issued under clause 9.16.1(a)(i) and containing the information described in clause 9.17.2.

**STEM Submission**: A submission by a Market Participant to the IMO made in accordance with clause 6.3B containing the information set out in, and in the format prescribed by, clause 6.6.

**Supplementary Capacity Contract**: An agreement under which a service provider agrees to supply one or more Eligible Services to the IMO, entered into in accordance with clause 4.24.

**Suspension Event**: An event described in clause 9.23.1.

**Suspension Notice**: A notice issued by the IMO in accordance with clause 2.32 or 9.23.7 that a Market Participant is suspended from trading in the Wholesale Electricity Market.

**SWIS**: See the South West Interconnected <u>sS</u>ystem.

**SWIS Operating Standards**: The standards for the operation of the SWIS including the frequency and time error standards and voltage standards set out in clause 3.1.

**SWIS Operating State**: One or any of the Normal Operating State, High Risk Operating State or Emergency Operating State.

**SWIS Restricted**: An information confidentiality status whereby information or documents may only be made available to the parties described in clause 10.2.2(b).

**Synergy**: The body corporate established under section 4(1)(c) of the Electricity Corporations Act 2005 (WA).

**System Management**: A segregated business unit of Western Power Corporation responsible for dispatching the power system.

**System Management Confidential:** An information confidentiality status whereby information or documents may only be made available to the parties described in clause 10.2.2(e).

**System Operation Fees**: The fees determined by the IMO in accordance with clause 2.24, and payable by Market Participants for the services provided by System Management.

**System Restart Service**: Has the meaning given in clause 3.9.8.

**Technical Code**: A code prescribing technical rules and requirements for access arrangements, established under the Access Code.

**Technical Envelope:** The limits for the operation of the SWIS in each SWIS Operating State.

**Temperature Dependent Load**: A Load that is not a Non-Temperature Dependent Load.

Test: Means a Commissioning Test or a Reserve Capacity Test.

Test Plan: Means a plan approved under Chapter 3 in relation to a Test.

**Total Amount**: Has the meaning given in clause 9.24.3.

**Tolerance Range**: The amount, determined by System Management under clause 2.13.6D of the Market Rules, by which a Market Participant may deviate from the obligations imposed on it under clause 7.10.1 or clause 3.21 before System Management must report an alleged breach of that clause under clause 2.13.6A.

**Trading Day**: A period of 24 hours commencing at 8:00 AM on any day after Energy Market Commencement, except where the IMO declares that part of a Trading Day is to be treated as a full Trading Day under clause 9.1.1, in which case that part is a Trading Day.

**Trading Interval**: A period of 30 minutes commencing on the hour or half-hour during a Trading Day.

**Trading Limit**: Has the meaning given in clause 2.39.1.

**Trading Margin**: Has the meaning given in clause 2.41.1.

**Trading Month**: A period from the beginning of a Trading Day commencing on the first day of a calendar month to the end of the Trading Day that finishes on the first day of the following calendar month.

**Trading Week**: A period from the beginning of a Trading Day commencing on a Thursday, to the end of the Trading Day that finishes on the following Thursday.

**Typical Accrual**: The amount determined in accordance with clause 2.42.2.

**Upward Deviation Administered Price (UDAP):** The amount calculated under clause 6.14.5.

Upward Unauthorised Deviation Quantity (UUDQ): The amount calculated under clause 6.17.3.

<u>Upwards LFAS Backup Enablement</u>: Means the quantity, in MW, by which the sum of the output of Facilities in the Verve Energy Balancing Portfolio was increased under clause 7B.4.1 in a Trading Interal and notified to the IMO under clause 7B.4.2.

<u>Upwards LFAS Enablement</u>: Means, for a Generator, a Non-Scheduled Generator and the Verve Energy Balancing Portfolio, the capacity, or that part of the capacity, in MW, in an LFAS Upwards Price-Quantity Pair selected under clause 7B.3.5(b) which is associated with that Facility or with the Verve Energy Balancing Portfolio, as applicable.

**Upwards LFAS Price**: Means the price determined under clause 7B.3.10.

<u>Upwards LFAS Quantity</u>: Means the quantity, in MW, by which the sum of the output of <u>LFAS Facilities is able to be increased in a Trading Interval to provide LFAS.</u>

<u>Upwards Out of Merit Generation</u>: Has the meaning given in clauses 6.16A.1, 6.16A.2 and 6.16B.1, as applicable.

Verification Test: Means a test under clause 4.25A.

<u>Verve Energy</u>: Means the body established by section 4(1)(a) of the Electricity Corporations Act 2005 (WA).

<u>Verve Energy Balancing Portfolio</u>: Means all the Registered Facilities of Verve Energy other than Stand Alone Facilities.

Western Power: The body corporate established by section 4(1)(b) of the *Electricity*Corporations Act 2005 (WA)

Western Standard Time: Co-ordinated Universal Time + 8 hours.

**Wholesale Electricity Market**: The market established under section 122 of the Electricity Industry Act.

**Wholesale Market Objectives**: The market objectives set out in Section of 122(2) of the Electricity Industry Act and repeated in clause 1.2.1.

**Working Group:** A working group as established under clause 2.3.17 of these Market Rules.