



#### **CONTENTS**

1.	RUL	E CHANGE PROCESS AND TIMETABLE	7
2.	PRC 2.1 2.2	The Rule Change Proposal The IMO's Initial Assessment of the Proposal	7
3.	3.1 3.2 3.3 3.4 3.5 3.6 3.7	The Market Advisory Committee  Submissions received during the first submission period  The IMO's response to submissions received during the first submission period  Submissions received during the second submission period  The IMO's response to submissions received during the second submission period  Submissions received during the Further Consultation submission period  The IMO's response to submissions received during the Further Consultation submission period  Public Forums and Workshops	8 9 11 14 14
4.	THE	IMO'S DRAFT ASSESSMENT	16
5.	THE	IMO BOARD'S PROPOSED DECISION	16
6.	<b>THE</b> 6.1 6.2 6.3	Additional Amendments to the Amending Rules Wholesale Market Objectives Practicality and Cost of Implementation	17 18
7.	<b>THE</b> 7.1	Reasons for the Decision	_
8.	8.1 8.2	ENDING RULES  Commencement  Amending Rules	24
APP	ENDI) SUB	X 1. RESPONSES TO SUBMISSIONS RECEIVED DURING THE SECOND BMISSION PERIOD AND RESULTING CHANGES TO AMENDING RULES	26
APP	ENDI)	X 2. RESPONSES TO SUBMISSIONS RECEIVED DURING THE FURTHER ISSULTATION PERIOD AND RESULTING CHANGES TO AMENDING RULES	57
APP	ENDI	X 3. ADDITIONAL CHANGES TO THE AMENDING RULES	59
۸DD	DENDLY A DEVISED AMENDING DITLES		22

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#### **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 opportunities 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 lead to inefficient incentives for operational and investment decisions and inequitable financial transfers between Market 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 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 by the Market Rules Design Team (formed under the Oates Review) that was tasked with recommending market design changes as a result of the outcomes from the Verve Energy Review (Oates Review). The Pathway decision was presented and approved by 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 and issued a notice calling for submissions on the Rule Change Proposal on 23 September 2011.

During the first submission period submissions were received from Alinta, Collgar Wind Farm, Landfill Gas & Power, Perth Energy, System Management, Synergy and Verve Energy. Submissions generally supported the proposal and no submissions opposed the proposal.

Following consideration of these submissions, the IMO published a Draft Rule Change Report on 6 December 2011 and called for a second round of submissions. Submissions were received from Collgar Wind Farm, Landfill Gas & Power, System Management and Verve Energy. Again no submissions opposed the proposal although System Management expressed concerns about a number of aspects of the proposed arrangements.

During the second consultation period, the IMO identified a small number of improvements to the proposal, including some designed to address concerns raised by System Management. To enable stakeholders to assess and comment on these changes, which were not subject to review as part of the Draft Rule Change Report, the IMO issued a notification of further consultation on 27 January 2012 and called for submissions. Submissions were received from Landfill Gas & Power and Verve Energy.

The IMO Board's final decision on RC 2011 10, as presented in this Final Rule Change Report is thus the result of a comprehensive design exercise, with strong stakeholder involvement and extensive consultation.

#### 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

In April 2011, 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 may be beneficial to the WEM. These included incentives for investment, confidence levels, longer-term transitional impacts and price signalling impacts. Notably, the study indicated that these benefits are likely to be more significant than the directly quantifiable benefits.

The implementation and ongoing costs included in the CBA study were provided by the IMO, System Management and other interested parties.

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

On 20 September 2011, Sapere subsequently confirmed positive net benefits taking account System Management's significantly increased cost estimates<sup>1</sup>.

The full report can be found here: <a href="http://www.imowa.com.au/MAC">http://www.imowa.com.au/MAC</a> 37.

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

The previously proposed 1 April 2012 transitional go live date was set in consultation with Market Participants and System Management. The IMO notes System Management have stated they will not be able to meet their new obligations under the Amending Rules resulting from RC 2011 10 until 1 July 2012.

#### The IMO Board's Decision

The IMO Board's decision is to implement the Rule Change Proposal as amended in the form set out in this Final Rule Change Report.

#### Next steps

With the exception of the clauses specified in the table below, the Amending Rules resulting from this Rule Change Proposal will commence at 8:00 AM on 1 July 2012.

Clause	Subject	Commencement
		Date

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

Clause	Subject	Commencement Date		
1.10	Specific Transition Provisions – Balancing and Load 1 June 2012 Following Services			
2.37.4	Determination of Market Participant Credit Limit	Determination of Market Participant Credit Limit 1 June 2012		
7A.1.2	Allows the IMO to set the Balancing Market 1 June 2012 Commencement Day			
7A.1.16	The IMO will determine the Balancing Gate Closure 1 June 2012			



#### 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.

In accordance with clause 2.5.10 of the Market Rules, the IMO decided to extend the timeframes for preparing the Draft Rule Change Report and the Final Rule Change Report. These extensions were to allow the IMO sufficient time to complete its internal IMO Board review process. Further details of the extensions are available on the IMO's website. The key dates in processing this Rule Change Proposal, as amended in the extension notices, are:



#### 2. PROPOSED AMENDMENTS

## 2.1 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;
- System Management will continue to dispatch the Verve Energy portfolio as a service to Verve Energy;
- 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; and



 Verve Energy will 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 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; and
- placing a stronger emphasis on surveillance and compliance.

The proposal also incorporates a number of corrections to minor and typographical errors to the Market Rules 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 its commencement. 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: <a href="http://mwww.//imowa.com.au/RC\_2011\_10">http://mwww.//imowa.com.au/RC\_2011\_10</a>.

## 2.2 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.

#### 3. CONSULTATION

#### 3.1 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 to 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 described in Pathway 1. Following this decision, the Rules Development Implementation Working Group (RDIWG) was established under clause 2.3.17 of the Market Rules 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 & 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 on the overall impacts of the Cost Benefit Analysis (CBA) undertaken by the Sapere Research Group, in particular the impact of the additional costs identified by System Management under the high and low cost assumptions. It was 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 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: http://www.imowa.com.au/RDIWG

#### 3.2 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
- Collgar Wind Farm
- Landfill Gas & Power
- Perth Energy

- System Management
- Synergy
- Verve 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.

Additionally, a number of drafting issues were identified by submitting parties along with suggestions for drafting improvements.

Submitters' assessments as to whether the proposal would better achieve the Wholesale Market Objectives are set out in Table 1 of the Draft Rule Change Report. Submitters' views on the costs and practicality of the proposed changes and the timeframe for implementation are set out in Table 2 of the Draft Rule Change Report.

A copy of all submissions in full received during the first submission period and the IMO's Draft Rule Change Report is available on the following IMO Web Page: <a href="http://www.imowa.com.au/RC\_2011\_10">http://www.imowa.com.au/RC\_2011\_10</a>.

## 3.3 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 of the Draft Rule Change Report available on the following IMO Web Page: <a href="http://www.imowa.com.au/RC\_2011\_10">http://www.imowa.com.au/RC\_2011\_10</a>.



### 3.4 Submissions received during the second submission period

Following publication of the Draft Rule Change Report on the IMO Web Page, the second submission period was between 7 December 2011 and 19 January 2012.

The IMO received submissions from:

Collgar Wind Farm

System Management

Landfill Gas & Power

Verve Energy

A copy of all submissions in full received during the second submission period is available on the following IMO Web Page: <a href="http://www.imowa.com.au/RC\_2011\_10">http://www.imowa.com.au/RC\_2011\_10</a>.

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

- Collgar Wind Farm and Landfill Gas and Power supported the proposal;
- Verve Energy did not specifically support or oppose the proposal (but had indicated general support in its first round submission);
- System Management supported the intent of the proposal and confirmed that it has received approval from the Western Power Board for its business case to establish the necessary arrangements;
- Verve Energy reiterated its view that the proposal 'unnecessarily fetters its effective participation in the new market' and raised a number of detailed drafting and design issues;
- System Management raised a number of concerns relating to governance design details and its ability to meet the proposed commencement date of 1 April 2012; and
- Collgar Wind Farm encouraged the IMO to be lenient from a compliance perspective during the initial months after market commencement.

Submitters' assessments as to whether the proposal would better achieve the Wholesale Market Objectives are set out in Table 1. For reference purposes, corresponding assessments from the first round of consultation are also shown (assessments from first round submitters that did not submit in the second round of consultation, which are not shown below, can be found in Table 1 of the Draft Rule Change Report).



**Table 1: Summary of Submitter Assessments Against the Wholesale Market Objectives** 

Submitter	Assessment (2 <sup>nd</sup> round submission)	Assessment (1 <sup>st</sup> round submission)
Collgar Wind Farm	Collgar Wind Farm considers that the Rule Change Proposal will operate to better facilitate the achievement of Market Objectives (a) and (b).	Collgar believes that the Rule Change Proposal will operate to better facilitate the achievement of Market Objective (b).
	Market Objective (a): Competitive Balancing and LFAS Markets will promote economic efficient outcomes through the use of transparent forecasting and pricing signals which will help to facilitate market based outcomes.	
	Market Objective (b): The proposal introduces the necessary framework for IPPs to participate in Balancing and LFAS markets and as such is conducive to better economic outcomes in parallel with the existing Short Term Energy Market.	
Landfill Gas and Power	No comment other than "supports Draft Rule Change Report".	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.

Submitter	Assessment (2 <sup>nd</sup> round submission)	Assessment (1 <sup>st</sup> round submission)
		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.
System Management	System Management believes that in relation to Market Objective (a), the Rule Change Proposal will fail to better facilitate the achievement of the 'reliable production and supply' element and will promote achievement of the economic efficiency element, although limited by the pricing methodology.  Market Objective (a) reliability element: The impacts of the	Unable to provide an assessment until the Market and Power System Operating Procedures have been drafted.
	Reserve Capacity mechanism and the ambiguity associated with dispatch the DRCR proposes fails to better achieve the achievement of the market objective "to promote the economically efficient, safe and reliable production and supply of electricity related services(emphasis added).  Market Objective (a) efficiency element: The proposed rule changes do promote productive economic efficiency by allowing a larger participation in service provision.	
	As an adjunct, System Management notes an opportunity to "promote the <u>economically efficient</u> , safe and reliable" exists in terms of dynamic economic efficiency. The Balancing Price does not reflect the true marginal cost of electricity as it does not reflect:	
	<ul> <li>the marginal price when DSP is dispatched, and</li> <li>the realtime capability of the marginal generator, rather a price based on balancing offers assuming all facilities can fully comply to the dispatch instructions.</li> </ul>	
	Hence System Management believes the proposed rule changes should be amended to capture this possibility.	
Verve Energy	None provided.	None provided.

No new information was provided by submitters regarding the costs and practicality of the proposed changes. However, System Management indicated that due to rework in responding to evolution of the market design it has used up contingency funding.

In relation to the timeframe for implementation, System Management indicated that its current work plan projections would allow a go live date of 1 July 2012, assuming outstanding issues were resolved by 3 February 2012 and there are no further changes materially impacting on the design of System Management systems. The IMO notes that in its first round submission, System Management indicated it was planning to achieve a late April 2012 transitional go live date with full market implementation in December 2012<sup>2</sup> but considered there were risks to the April commencement date and that it would be preferable to delay this by a few months.

# 3.5 The IMO's response to submissions received during the second submission period

The IMO's response to submissions on the Draft Rule Change Report and resulting changes to the Amending Rules are detailed in Appendix 1 of this Final Rule Change Report.

#### 3.6 Submissions received during the Further Consultation submission period

Following publication of the notification of further consultation on 27 January 2012, the associated submission period was between 30 January and 7 February 2012.

The IMO received submissions from

- Verve Energy; and
- Landfill Gas & Power.

A copy of all submissions in full received during the Further Consultation submission period is available on the following IMO Web Page: http://www.imowa.com.au/RC 2011 10.

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

- Landfill Gas and Power supported the further proposed changes;
- Verve Energy requested clarification regarding Issue 3 in the Further Consultation Report;
- Verve Energy requested clarification regarding Issue 4 in the Further Consultation Report; and
- Verve Energy requested clarification regarding a number of clauses that have been amended as initiated by the IMO in Appendix 3.

<sup>&</sup>lt;sup>2</sup> The IMO notes that during informal discussions with System Management it had received commitment for an April 1 2012 transitional go live.



# 3.7 The IMO's response to submissions received during the Further Consultation submission period

The IMO's response to submissions on the Further Consultation Report [and resulting changes to the Amending Rules] are detailed in Appendix 2 of this Final Rule Change Report.

#### 3.8 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 MAC in September 2011. This included:

- The MRDT was formed early 2010 under the Oates Review (included IMO & System Management) to look at the MREP<sup>3</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 19 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 RDIWG meetings the IMO has conducted numerous workshops with interested parties to discuss the proposed Balancing and LFAS markets including:

- four 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 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>3</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
- three procedure workshops 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 or second submission period or the further consultation 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.

#### 4. THE IMO'S DRAFT ASSESSMENT

The IMO's draft assessment, against clauses 2.4.2 and 2.4.3 of the Market Rules, and analysis of the Rule Change Proposal can be viewed in the Draft Rule Change Report (available on the IMO's website: <a href="http://www.imowa.com.au/RC\_2011\_10">http://www.imowa.com.au/RC\_2011\_10</a>).

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

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

The wording of the relevant Amending Rules was presented in Appendix 3 of the Draft Rule Change Report.

The IMO Board made its proposed decision on the basis that the Amending Rules:

- are consistent with the MAC recommendation to retain the current hybrid market design, evolving this as far as practical;
- are 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 STEM, the Balancing and LFAS 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 the general support of the MAC;
- are generally supported by submissions received during the first submission period; and
- address previous concerns raised by Market Participants.

#### 6. THE IMO'S FINAL ASSESSMENT

In preparing its Final 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 in respect of this Rule Change nor has it commissioned a technical review in respect of this Rule Change Proposal. A summary of the views expressed in submissions and by the MAC is available in section 3 of this Final Rule Change Report.

Details of the additional amendments to the Amending Rules presented in the Draft Rule Change Report are presented in section 6.1 below. The IMO's assessment of the Rule Change Proposal, inclusive of the further amendments made following the first and second submission periods and further consultation period, is outlined in the following sub-sections.

## 6.1 Additional Amendments to the Amending Rules

The IMO has made some additional changes to the Amending Rules that were proposed in the Draft Rule Change Report following the second submission period and further consultation period. The changes have been made to:

 address System Management's concerns about responsibilities where a participant cannot fully comply with an instruction from System Management;



- clarify participants' compliance obligations regarding adherence to instructed dispatch targets and ramping rates;
- strengthen provisions relating to misleading conduct;
- clarify provisions relating to the calculation of out of merit generation and constrained on and off compensation
- recommend that some additional clauses be subject to civil penalty provisions. The reasons for these changes were outlined in section 5.1 of the <u>Further Consultation</u> <u>Report;</u>
- allow the ERA to determine Margin Values;
- the selection criteria for determining which Facilities will be scheduled to provide LFAS in the LFAS Market;
- support the transition from the existing arrangements to the new Balancing and LFAS markets;
- dispatch clauses to ensure consistency with the approach in the <u>Further Consultation</u> <u>Report</u>; and
- fix drafting and typographical issues identified in the Amending Rules proposed in the Draft Rule Change Report and provide better clarity for Rule Participants regarding their obligations.

The additional changes the IMO has made to the Amending Rules presented in the Draft Rule Change Report which were not outlined in the Further Consultation Report are outlined in Appendix 3 of this Final Rule Change Report.

#### 6.2 Wholesale Market Objectives

The IMO considers that the Market Rules as a whole, if amended as presented in Appendix 4, 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 IPP facilities to provide Balancing and LFAS services for the first time. This proposal to include IPP's as well as Verve Energy in the provision 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 onthe-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 cost 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 enhances 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 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 Market 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;
- 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 participation in 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 following 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 the operation of their facilities.

The proposal will help minimise the long-term costs 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.

#### 6.3 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 CBA 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>4</sup>.

Market Participants provided cost estimates for the CBA 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 during the formal submissions on the proposal although, as noted previously, System Management indicated in its second round submission that it has used up its contingency funding.

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

#### <u>Updates to Market Procedures and other market documents</u>

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

- Facility Registration. De-registration and Transfer;
- Certification of Reserve Capacity;
- IT Interface System Overview and Requirements; and
- Maximum Reserve Capacity Price.

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

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



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

- Balancing Facility Requirements;
- Balancing Forecasting; and
- IMS Interface.

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

- Market Surveillance Catalogue;
- 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 internal procedures and 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 will be 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 in the first formal submission round that it was planning to achieve a late April 2012 transitional go live commencement date with full market implementation in December 2012<sup>5</sup> and stated a preference for delaying the transitional go live date 'by a few months'. At the time System Management indicated that robust communication systems could be in place by July 2012.

In its second round submission, System Management indicated that its current work plan projections would allow a go live date of 1 July 2012 if outstanding issues are resolved by 3 February and there are no further changes materially impacting on the design of System Management systems.

Collgar Wind Farm commented on implementation timeframes but without reference to dates. It noted that it would "require sufficient time (along with other market participants) to source appropriate resources prior to the start of the new markets to implement the necessary changes".

The IMO will be ready to operate the new market arrangements from the 1 April 2012 transition date. Since 1 December 2011, Market Participants have been able to gain an understanding of requirements through a live trial of market systems.

Prior to presenting this Final Rule Change Report to the IMO Board, IMO Management conducted extensive consultation with Market Participants to gage their preparedness for the new Balancing and LFAS markets. Universally Market Participants informed the IMO that should the IMO Board choose a commencement date of 1 April 2021 they would be prepared to meet their new obligations. System Management informed the IMO Board that they would not be capable of meeting the 1 April go live date previously committed to. System Management informed the IMO that they would be capable of meeting their new obligations under the transitional arrangements by 1 July 2012, and confirmed their intention to meet the full implementation obligations by December 2012. These discussions were reported to the IMO Board and their subsequent decision to delay a market go-live date of 1 July is outlined in section 7 of this report.

The IMO is committed to working with System Management and Market Participants and will need to retain a full Project Team through the extended period of time before Market go-live to maintain the integrity of the new systems. The IMO will also retain a skeleton Project Team through the transition from 1 July 2012 to December 2012.

#### 7. THE IMO BOARD'S FINAL DECISION

Based on the matters set out in this report, the IMO Board's final decision is to accept the Rule Change Proposal as modified following the first and second submission periods and further consultation period.

FINAL RULE CHANGE REPORT RC\_2011\_10

<sup>&</sup>lt;sup>5</sup> In informal discussions the IMO had received a commitment from System Management for an April 1 2012 transitional go live.

#### 7.1 Reasons for the Decision

The IMO has made its decision on the basis that the Amending Rules:

- are consistent with the MAC recommendation to retain the current hybrid market design, evolving this as far as practical;
- are 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 LFAS 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 the general support of the MAC;
- are generally supported by submissions received during the formal submission periods and further consultation period; and
- address previous concerns raised by various Market Stakeholders.

Additional detail outlining the analysis behind the IMO's decision is outlined in section 6 of this Final Rule Change Report.

#### 8. AMENDING RULES

## 8.1 Commencement

With the exception of the clauses specified in the table below, the Amending Rules resulting from this Rule Change Proposal will commence at 8:00 am on 1 July 2012..

Clause	Subject	Commencement Date	
1.10	Specific Transition Provisions – Balancing and Load 1 June 2012 Following Services		
2.37.4	Determination of Market Participant Credit Limit 1 June 2012		
7A.1.2	Allows the IMO to set the Balancing Market Commencement Day	1 June 2012	



Clause	Subject	Commencement Date
7A.1.16	The IMO will determine the Balancing Gate Closure	1 June 2012

## 8.2 Amending Rules

The Amending Rules resulting from this Rule Change Proposal are presented in Appendix 4 of this Final Rule Change Report.



# APPENDIX 1. RESPONSES TO SUBMISSIONS RECEIVED DURING THE SECOND SUBMISSION PERIOD AND RESULTING CHANGES TO AMENDING RULES

Note that this Appendix contains changes which the IMO is making to the Amending Rules in response to second round submissions. The full set of Amending Rules is contained in Appendix 4.

## Collgar Wind Farm Pty Ltd

	Submitter	Comment / Change Requested	IMO Response
1	Collgar Wind Farm Pty Ltd	Collgar supports the development of the Wholesale Electricity Market (WEM) through continued improvements toward the economic efficient outcomes that promote competition between market participants to provide Balancing and Load Following Ancillary Services.	Noted.
2	Collgar Wind Farm Pty Ltd	Collgar supports detailed procedures to supplement the Market Rules to support participant's transition to the new hybrid market.	Noted.
3	Collgar Wind Farm Pty Ltd	Collgar encourages the IMO to be lenient in compliance for the initial months following the commencement date to provide participants with ample opportunity to finalise and amend systems and processes.	The IMO is cognisant that compliance risks will be more prominent, and that participants will need to adapt their operations to meet requirements for participating in the new market.  The IMO stresses that participants will be expected to comply with their obligations and the IMO is expanding its compliance monitoring and enforcement capabilities. The IMO is also adopting a proactive approach to compliance prior to market commencement including, for example, through stakeholder engagement, scenario workshops, newsletters etc and offers of help to participants in considering their compliance obligations and internal monitoring, etc.

# Landfill Gas and Power Pty Ltd

	Submitter	Comment / Change Requested	IMO Response
1	Landfill Gas and Power Pty	LGP supports the Draft Rule Change Report.	The IMO notes LGPs ongoing support for the continued evolution of the WEM.
	Ltd		

## Verve Energy

	Submitter	Comment / Change Requested	IMO Response
1	Verve Energy	In its submission during the first round of	The IMO considers that the proposed arrangements provide an appropriate balance
		consultation, Verve Energy raised concern about	between flexibility and potential concerns about the dominant position of the Verve
		various measures proposed in the amending	Energy portfolio in the Balancing Market. The IMO reiterates its response to Verve
		rules that unnecessarily fetter its effective	Comment 2 in the Draft Rule Change Report:
		participation in the new market and will likely	
		lead to a less efficient market outcome than	"Verve Energy has greater flexibility than other Market Participants in participating in
		could otherwise be achieved.	Balancing on a portfolio basis, particularly because it has flexibility in deciding with
			System Management how Facilities within the Verve Energy Balancing Portfolio are to be
		Verve Energy's view on this matter remains	operated to meet BMO commitments.
		unchanged and again urges IMO to contemplate	
		whether the restrictions that it is imposing on	Verve stand alone facilities have the same bidding arrangements as other participants.
		Verve Energy are necessary.	The IMO notes that the Market Power Review, 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
			• the opportunities to split facilities from the Verve Energy Balancing Portfolio and

	Submitter	Comment / Change Requested	IMO Response
			participate on a stand-alone basis is provided."
2	Verve Energy	The Non-Qualifying Contrained-On Generation for the Verve Energy Balancing Portfolio (clause 6.17.5(e) quantities) could require clearer definition. We read this clause to require actual energy dispatched out of Upwards LFAS Enablement, Upwards LFAS Backup Enablement and Spinning Reserve. This data could be determined by System Management and could be included in the list of data to be provided under clause 7.13.1 this time at Market Participant level.	As noted in the Further Consultation Report (under Issue 3), the IMO has amended the drafting of Non-Qualifying Constrained-On (and off) Generation provisions and the definitions of terms relating to LFAS and Spinning Reserve (Load Rejection Reserve). The IMO considers that the revised drafting is much clearer.  Specifically, Non-Qualifying Constrained-On Generation comprises MW capacity reserved for Upwards LFAS Enablement, plus any Upwards LFAS Backup Enablement, divided by two to represent an equivalent MWh band, plus any energy provided as a Spinning Reserve response (excluding any such response by virtue of the facility being activated for LFAS duty).
3	Verve Energy	Subclause iii would suggest that the Spinning Reserve Response Quantity (energy dispatched) will include the LFAS Response Quantity (presumably energy dispatched though this term has been left out of the glossary). Thus even when there is no Spinning Reserve Event this subclause will not result in a negative result. This basis should hold for the determination in clause 6.16B.1(b)ii3 as well.	The drafting and definition of Spinning Reserve Response Quantity has been amended as per the Further Consultation Report to now expressly exclude any energy associated with LFAS.
4	Verve Energy	The LFAS Response Quantity in this clause should only be that for Upwards LFAS (including backup).	The clause Verve Energy is referring to has been amended as per the Further Consultation Report and no longer refers to LFAS response Quantity. The IMO considers that the proposed amendments rectify Verve Energy's issue.
5	Verve Energy	The Non-Qualifying Constrained-Off Generation for Verve Energy Balancing Portfolio (clause 6.17.6A(e) quantities) could similarly require clearer definition. This time the variables required will be the downwards LFAS including backup and Load Rejection.	Noted – amendments made similar to the Non-Qualifying Constrained-On Generation outlined in comment 2 above.
6	Verve Energy	Subclause iii would suggest that the Load Rejection Reserve Response Quantity (energy dispatched) will include the LFAS Response	Noted – amendments made similar to the Spinning Reserve Response Quantity outlined above.

	Submitter	Comment / Change Requested	IMO Response
		Quantity (presumably energy dispatched though	
		this term has been left out of the glossary). Thus	
		even when there is no Load Rejection Reserve	
		Event this subclause will not result in a negative	
		result. This basis should hold for the	
		determination in clause 6.16B.2(b)ii3 as well.	
7	Verve Energy	The LFAS Response Quantity in this clause	The clause Verve Energy is referring to has been amended as per the Further
		should only be that for Downwards LFAS	Consultation Report and no longer refers to LFAS response Quantity. The IMO considers
		(including backup).	that the proposed amendments rectify Verve Energy's issue.
8	Verve Energy	Ex-Post LFAS Quantities	The IMO notes that the ex-post LFAS quantities are advised to the IMO by System
		The ex-post LFAS quantities should exclude the	Management and only include LFAS that was being provided at the end of the interval.
		quantity not made available after LFAS auction	As such the ex-post LFAS quantities will not include any LFAS not provided. The IMO
		clearance. Partly this comes through a clause	does not propose any amendments.
		7B.2.17 notice from the Market Participant – the	
		remaining quantity still available notified. The	
		definition in the glossary could thus be	
		confusing. We would suggest stopping the	
		definitions after "that Trading Interval" - deleting	
		the rest of each of the clauses.	
9	Verve Energy	Publication of Balancing Price	The IMO intends to publish balancing prices as soon as the all necessary information is
		Under clause 7A3.10, the IMO has up to 12	available. The 12 hour delay is to allow the IMO sufficient time to verify pricing results
		hours to update and publish the Balancing	where necessary during the transition period.
		Prices after the System Management update	
		under clause 7A.3.8. This could result in the	
		Balancing Prices for a Trading Day not being	
		released until the third Trading Day. We request	
		that the 12 hour period in 7A3.10 is reduced to 7	
		hours in order for the Balancing Prices to be	
		published no later than the end of the second	
		Trading Day.	
10	Verve Energy	First LFAS Submission for a Trading Day	The IMO does not agree with Verve Energy that moving the LFAS submission gate
		The first LFAS submission for a Trading Day for	closure to 5:00PM will resolve Verve Energy's perceived issue.
		Verve Energy (clause 7B.2.3) is due at the same	
		time as the Balancing Submission covering the	The IMO notes that even were the LFAS submission time moved back to 5:00PM, the

	Submitter	Comment / Change Requested	IMO Response
		same Trading intervals. This will result in all Market Generators not having the result of the LFAS auction before putting in their Balancing Submissions. In contrast, the subsequent LFAS submissions will be an hour ahead of the Balancing Submissions covering the same Trading Intervals (as the LFAS submission). For the benefit of the market, we request that the 6.00 PM time limit in the clause 7B.2.3 is changed to 5.00 PM.	periods which this submission cover will not occur until 8:00AM - with an LFAS Gate Closure at 11:00PM (assuming an initial 6 hour gate closure period). Therefore the subsequent 6:00PM Balancing Submission will still need to be made without the knowledge of the LFAS auction results. The IMO further notes that even were it to allow LFAS submissions to be made for the following Trading Day there would be no Balancing Submissions (and hence BMO and Forecast Balancing Price) to compare to the "incremental costs" of providing LFAS.  The IMO notes that Verve Energy will always have an opportunity to update their Balancing Submission to match any changes due to LFAS assumptions being inaccurate due to the LFAS auction results because they have a step for Balancing Submissions 1
11	Verve Energy	Clause 7B.3.1  This clause was to be deleted as indicated in the IMO response to System Management comment (item 61) from the first consultation period but has not been deleted. Deleting this clause will remove the confusion mixing loss-factor-adjusted and non-loss-factor-adjusted prices when carrying out the LFAS auction.	hour after each LFAS auction is completed.  To be deleted
12	Verve Energy	Submission Timeline Related Clauses A general observation is that the rules as drafted in relation to LFAS and balancing submission timelines may be difficult to follow and open to interpretation. An example is clause 7B2.3. It is suggested that IMO reviews the relevant clauses to ensure that they are correct, and clear and unambiguous. Verve Energy will be happy to discuss areas of concern with IMO.	The IMO considers that the Balancing timeline clauses as drafted accurately represent the timelines agreed as part of the RDIWG. The IMO notes that the drafting of the clauses is somewhat difficult to understand due to the requirement to reference the balancing gate closure instead of a firm time. This is a consequence of the agreed transitional arrangement for a six hour gate closure until December (when the gate closure will change to 2 hours).  However, the IMO has amended the definition of LFAS Horizon to provide better clarity as to the intended LFAS timelines.

# System Management

	Submitter	Comment / Change Requested	IMO Response
1	System Management	These markets are expected to reduce some existing operational risks in the South West Interconnected System (the SWIS) such as:  Risks of excessive generation during overnight operation particularly during the lightly loaded shoulder sessions;  Excessive ramping by IPPs whilst attempting to meet unrealistic resource plans, and  Intermittency in dispatch caused by increased penetrations of renewable capacity on the SWIS.	Noted State of the
2	System Management	System Management welcomes the IMO's efforts through the use of a steering group to provide better management of the change control process.	Noted
3	System Management	Before setting the commencement date, time is needed by System Management and Market Participants to filly consider the impacts of any changes to the requirements.  Western Power, and its ring fenced business unit System Management, remain concerned about the IMO's focus on achieving target dates that may put at risk the proper resolution of outstanding market issues. Further pressure is coming from the ongoing changed to the Market Rules and Procedures. Both Western Power and System Management are of the strong view that a more realistic transitional go-live date needs to be determined with immediate urgency	The IMO notes System Managements concerns with regards to the need for consultation on the implementation of the new Balancing Market. The IMO notes that it has adequately followed the requirements prescribed under the Market Rules relating to consultation on a Rule Change Proposal. Furthermore the IMO reiterates its comment from the Draft Rule Change Report (see System Management comment number 2) that this is the most extensively consulted on Rule Change in the history of the WEM. In addition to the extensive consultation outlined in the Draft Rule Change Report there has also been:  • a further consultation period which enabled Market Participants an opportunity to consider a number of proposed changes to the Market Rules not previously identified in the Draft Rule Change Report; and  • two further Rules Development Implementation Working Group (RDIWG) meetings – including one which specifically looked at System Managements issues raised in this submission and also the Further Consultation Report".

	Submitter	Comment / Change Requested	IMO Response
		to enable target dates and cost targets to be met.	
4	System Management	Although a substantial collaborative effort by both System Management and the IMO in the period since the first consultation period resulted in good progress on the majority of issues raised in our first submission, agreement has not been reached on a number of key risks,	The IMO notes that issues raised in System Management's submissions have been fully considered and taken into account in preparing the proposed Amending Rules reflected in the notification for Further Consultation Report and in this Final Rule Change Report. The IMO notes that the wider interests and objectives of the market also have to be taken into account in considering the issues raised by System Management and other stakeholders but is of the firm opinion that the Amended Rules contained within this report ensure System Management's ability to manage system security at all times is preserved (and will ensure that more resources are available for normal dispatch purposes). The IMO acknowledges that System Management will need to address some remaining risks in relation to its ability to meet its new/enhanced regulatory requirements.
5	System Management	Importantly this includes the risk identified in its first round submission that there remains no clear enforceable obligation upon participants to submit their available capacity in their balancing submissions.	The IMO reiterates its comments from the Draft Rule Change Report (see comment 4 in response to the System Management submission in the Draft Rule Change Report).  Participants must include in a Balancing Submissions "each MW of its Sent Out Capacity from zero capacity to the maximum Sent Out Capacity." This requirement (see glossary) is strongly backed up by the inclusion of civil penalty provisions for inaccurate or misleading submissions and for failing to meet Dispatch Instructions.
6	System Management	Further System Management's inability to confirm a facility's available capacity in real time presents a material and substantial risk to power system security.	The IMO notes that participants are required to present and maintain accurate submissions and to confirm and comply with all Dispatch Instructions (both provisions being subject to civil penalty).  For further information, please refer to comment 43 below.
8	System Management	The Draft Rule Change report introduces a range of new obligations on System Management to provide data to the IMO. There are also ongoing discussions between the IMO and System Management on design issues that will potentially have flow on effects to the current	Changes to the proposed Market Rules as part of the Draft and Final Rule Change Reports are a normal part of the Rule Change Process.  In regards to System Managements concern about the changes needed to the Market Procedures, the IMO has acknowledged that Market Procedures being developed in parallel to the Market Rules proposed under this RC_2011_10 will require incremental

	Submitter	Comment / Change Requested	IMO Response
		draft Rules and Market Procedures.	changes to tie in with the approval (or otherwise) of RC_2011_10. It was for this reason, in part <sup>6</sup> , that the IMO originally put forward the Rule Change Proposal: Extensions to Procedure Change Proposal timelines (RC_2011_12).  In response to System Managements concern on adequate consultation on the resolution
			of any outstanding issues, the IMO notes that has been continuing to hold discussions with System Management and has sought further consultation on a number of issues though the release of the Further Consultation Report and responded to any concerns raised through that consultation in Appendix 1. The IMO reiterates its belief that the
			consultation on RC_2011_10 has been more than adequate (for more information please refer to comment 3)
10	System Management	A related issue is that the current Market Trials are being conducted based on a draft set of Rules. System Management notes that robust testing can only occur once the draft Rules are finalised allowing all system requirements to be specified. The continuous evolution of the draft Rules puts the value and purposefulness of the current Market Trials at risk.	The IMO notes that the market trial environment has been incrementally upgraded as functionality has been developed. The staged approach to the market trial has allowed the IMO to implement basic functionality, that has remain unchanged since the proposed Market Rules, and then deliver full functionality after the Market Rules have been stabilised. The risk of changes to the Amending Rules and impacts that this may have to market systems has been highlighted to the market and managed since the MEP project was initiated.
11	System Management	Sufficient time is required for the finalisation of the procedure change process for System Management's PSOP's, including any timeline extensions to allow participants additional consultation time where necessary (as is now allowable as a result of RC_2011_12). Again, once certainty in relation to the PSOP's is achieved, participants must be given time to implement the changes.	The IMO notes its intention to follow the Procedure Change Process allowed for in the Market Rules (including the ability for extensions to timelines allowed for in RC_2011_12). The IMO notes that an assessment of implementation dates corresponding to those procedures is expressly required as part of that process. For more information on the requirement for further consultation refer to the IMO response to System Management comment 3 above.
12	System Management	System Management remains concerned that the IMO's focus on achieving timeframes could result in the implementation of changes without sufficient consideration and resolution of identified issues for the Market and its	The IMO notes that Market Procedures cannot be finalised until the Market Rules proposed in this RC_2011_10 have been approved by the IMO Board and subsequently by the Minister (for protected provisions), therefore the IMO will be making the procedures effective as of the RC_2011_10 commencement date.

<sup>&</sup>lt;sup>6</sup> – for further information refer to the final Rule Change report on RC\_2011\_12:

	Submitter	Comment / Change Requested	IMO Response
		participants. System Management's strong view	
		is that the alignment of the final Rules and the	
		final Market Procedures should not be	
		overlooked in favour of achieving the April 2012	
		proposed commencement date.	
13	System Management	In its first round submission System	The IMO is of the firm belief that it has the full endorsement of MAC, the IMO Board and
		Management raised broader governance issues	Market Stakeholders to progress this Rule Change.
		regarding transparency, accountability and	
		quality process surrounding the development of	
		the Proposal. System Management shares the	
		Economic Regulation Authority's view that	
		strategic and fundamental energy policy	
		changes, such as those proposed in	
		RC_2011_10, should not be conducted by the	
		market administrator.	
14	System Management	Recently the State Government announced the	See response to comment 13 above
		establishment of the Public Utilities Office (PUO)	
		to adopt the responsibilities of the Office of	
		Energy. These arrangements are to be	
		implemented by the end of March 2012. Given	
		the PUO's initial focus will be on energy	
		markets, the IMO should consider the need for	
		the PUO to review the Proposal and its	
		implications to the commencement of the new	
		Rules.	
15	System Management	System Management continues to support	The IMO notes that the primary focus of market design evolution has been on the
		reform of the Wholesale Electricity Market but	implementation of the Balancing and Load Following Markets in line with priorities in the
		notes that little progress has been made on	Market Rules Evolution Plan. That plan was established following consultation with all
		other areas of the market that have required	stakeholders.
		attention since 2010.	
			However while the primary focus has been on the implementation of the new Balancing
		Outstanding issues other than competitive	and Load Following Markets the IMO notes that there has been advancements in many of
		balancing and load following that have direct	the areas identified by System Management.
		impact on the efficacy of the Market include:	

	Submitter	Comment / Change Requested	IMO Response
	The reserve capacity mechanism Capacity refunds  Outage planning process clarity Registration Commissioning and testing Reforms in these areas have not commenced at this stage.	<ul> <li>The Reserve Capacity Mechanism (RCM): The IMO has recently called for nominations to establish a working group to consider the recommendations of The Lantau Report<sup>7</sup>. The first meeting of the RCM Working Group will occur during February 2012.</li> </ul>	
		<ul> <li>Capacity Refunds: The RDIWG reviewed a proposal for a change to capacity refunds to enable them to be more dynamically calculated. However the RDIWG proposed to merge this review in with the broader RCM review mentioned above when it became apparent that capacity refunds could not be worked on in isolation to the broader RCM review;</li> </ul>	
		<ul> <li>Outage Planning Review: The IMO, in conjunction with System management recently completed the five year review of the outage planning process. Amendments to the outage planning process, and in particular the level of transparency of the process, will be considered in conjunction with industry in late 2012.</li> </ul>	
		<ul> <li>Registration: The IMO has recently developed a new registration system in WEMS which addresses many of the issues associated with registration; and</li> </ul>	
		<ul> <li>Commissioning and Testing: The IMO notes that SM has developed a new commissioning process in its commissioning and testing market procedure. In addition to this the IMO notes that commissioning and testing impacts on the market are to become much more transparent through the IMO's commitment to identify commissioning energy in the BMO.</li> </ul>	
17	System Management	Our current projection of the work plan would allow a market go-live date of 1 <sup>st</sup> July 2012. This date assumes all outstanding issues are resolved by 3 <sup>rd</sup> February 2012 and there are no further changes that will have a material impact on the design of our systems.	Refer responses to comments 3, 8 and 10 above.  Additionally the IMO notes that other than the issues raised in the Further Consultation Report, there have been no substantial changes to the Market Rules proposed in the final Report.
		Given the extent of issues still requiring resolution between System Management and the IMO, and the likelihood of additional issues being raised by other participants and the time needed to resolve them, we consider that this July date is optimistic. Further discussion on the	

<sup>&</sup>lt;sup>7</sup> http://www.imowa.com.au/f5415,2009097/09.\_Agenda\_Item\_8\_Lantau\_Report.pdf

	Submitter	Comment / Change Requested	IMO Response
		system development timeframes is contained in	
		our Submission Form at Attachment A.	
18	System Management	The ability to physically dispatch generators in	Noted
		accordance with security and reliability	
		constraints and a price based merit order will	
		help overcome some of the issues for SM in	
		operation of the SWIS and will lead to a more	
		efficient outcome when compared to the current	
		rule based order.	
19	System Management	The Balancing Forecast and Dispatch Outcomes are Materially Different	The IMO notes that the situation that System Management is referring to is due to the theoretical "unconstrained network" model of the WEM. The IMO notes that while the BMO (and hence the price and the IMO forecasts) will be "unconstrained" System
		The price signalling process fails to take into	Management is required to inform the market when they expect they will need to dispatch
		account the physical constraints of the power	a facility Out of Merit through a Dispatch Advisory. System Management are also required
		system. These include start up times, generation	to identify which facility(ies) they expect to dispatch out of merit and the reasons for this.
		real time dispatch and network constraints. As	This advisory should alleviate System Managements concerns.
		such, potentials misleading information of their	
		future dispatch requirements will be provided to	
		participants. This may lead to them placing their facilities in a state where they are unable to start	
		in time, leading to potential supply shortfalls.	
20	System Management	The Dispatch Criteria and the "Reduced	Noted, please refer to Issue 1 in the Further Consultation Report and the drafting in
20	System Management	Extent" clause are Unclear	Appendix 4 which further clarifies this point.
			Appendix 4 which further damles this point.
		The dispatch criteria is unclear and so undermines System Management's ability to perform its <b>function</b> of operating the SWIS. This poses a risk to Power System Security in that the participant's are unclear of the obligations and responsibilities.	
		SM has provided proposed revisions to the relevant clauses as Appendix 1 which it believes makes these unambiguous.	
		Appendix 1 Revisions to clarify dispatch and	

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

	Submitter	Comment / Change Requested	IMO Response
		c) clause 7.6.1B(d) in priority to clause 7.6.1B(c),	
		where:	
		a) System Management considers, on reasonable grounds, that it needs to do so in order to avoid going into or is in a High Risk Operating State condition or an Emergency Operating State condition; or	
		<ul> <li>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.</li> </ul>	
		7.6.1D. System Management may only issue Dispatch Instructions under:	
		Clause 7.6.1B(c) in priority to clause 7.6.1B(b),	
		Where:	
		a) System Management considers, on reasonable grounds, Market Participants will not be able to fully comply with Dispatch Instructions	
		System Management considers, on reasonable	
		grounds, that it is required to do so for Power	
		System Security and Reliability purposes.	
21	System Management	In addition the "reduce extent" clauses are	Noted, please refer to Issue 1 in the Further Consultation Report and the drafting in
		unclear. This poses a risk to Power System	Appendix 4 which further clarifies this point.
		Security by allowing the participant to respond in a way that exacerbates Power System	
		frequency deviations.	
		SM has provided proposed revisions to the relevant clauses as Appendix 1 which it believes	

Submitter	Comment / Change Requested	IMO Response
	makes these unambiguous.	
	Appendix 1 Revisions to clarify dispatch and reduced extent	
	Proposed Revision to clarify the reduced extent obligations	
	7.7.6	
	(b) a Market Participant must confirm receipt of the Dispatch Instruction or Operating Instruction and advise if it cannot comply with the Dispatch Instruction or Operating Instruction. If the Market Participant advises that it cannot fully comply, then it must also advise the reduced extent of	
	(i) for a dispatch instruction given in 7.7.6(a) to increase its sent out generation or reduce its Demand Side Programme consumption	
	(a) the ramp rate it will maintain of its sent out generation or consumption at, where this must be less than the ramp-rate in the Dispatch Instruction and greater than or equal to its current sent out generation or consumption	
	(ii) for a dispatch instruction given in 7.7.6(a) to decrease its sent out generation	
	(a) the ramp rate it will maintain of its sent out generation at, where this must be greater than that in the ramp-rate in the Dispatch Instruction and greater than zero, and	
	(b) the sent out generation target MW, where this must be greater than that in the target MW	

	Submitter	Comment / Change Requested	IMO Response
		in the Dispatch Instruction and less than or equal	
		to its current sent out generation	
		The Market Participant can comply with the	
		Dispatch Instruction or Operating Instructions.	
		The advise and confirmation under this clause	
		7.7.6(ba) must be made in the time and manner	
		set out in the Power System Operation	
		Procedure,	
		7.10.1A	
		Where a Market Participant has advised System	
		Management under clause 7.7.6(b) that it cannot	
		fully comply with a Dispatch Instruction or an	
		Operating Instruction and has also advised a	
		ramp rate and target MW reduced extent to	
		which it can comply, the Market Participant must	
		comply with the Dispatch Instruction but only to	
		that ramp rate and target MW reduced extent. A	
		Market Participant's failure to fully comply with	
		the Dispatch Instruction is not excused by this	
		clause 7.10.3A.  Civil Penalty Provisions and Protected	
22	System Management	Provisions	Noted, please refer to Issue 6 in the Further Consultation Report.
		The DRCR is silent on the changes required to	
00	Overtone Management	these provisions.	The IMO is at the existing that such a sight enable exist. Destining the example of the
23	System Management	SM believes that a civil penalty must exist for market participants not making all its available	The IMO is of the opinion that such a civil penalty exists. Participants are required to include all sent out capacity in their submissions and the accuracy of submissions is
		capacity to the Balancing Market. Examination	subject to civil penalty (please refer to comment 5 above).
		of the proposed penalties does not show that	subject to civil perialty (please relei to confinent 3 above).
		one exists.	
24	System Management	SM believes the penalty regarding clause	Agreed
		7B.2.13 should refer instead to clause 7B.2.14.	
25	System Management	SM believes that the protected provisionsof	The IMO notes that is not proposing any amendments to 10.2.1 and believes the clause
		clause 10.2.1 is not appropriate as it relates to	should remain as a protected provision.

	Submitter	Comment / Change Requested	IMO Response
		the IMO having sole discretion on confidential	
		information.	
26	System Management	SM believes that the removal of the deadline for	Out of scope for this Rule Change
		the Procedure change requires removal of the	
		protected provision of clauses 2.10.17, 2.10.18	
		and 2.10.19.	
		The estimated incremental capital cost (i.e.)	
		costs above that already approved in SMs	
		Allowable Revenue) of the above scope of works	
		is \$11.95 million (including allowances for risk	
		and escalations) over the 2011/12-2012-13 financial years. Ongoing incremental operating	
		costs are estimated to average \$1.75 million per	
		annum (including allowances for risk and	
		escalation) over the next 4 years. There will	
		also be a substantial financing fee due to the	
		delay between project spend and recovery via	
		increased market fees.	
28	System Management	Risk 1: EIA Regs, Glossary	Refer to the IMO response to comment 5 above and the IMO response to comment 4 in
			the Draft Rule Change Report.
		Reserve Capacity Mechanism fails ahead of realtime	
		Todamio	
		Description	
		The risk related to the removal of an enforceable	
		obligation. There is no link between the morning	
		submissions (completion of STEM), and the first	
		balancing merit order.	
		The proposed changes introduce the definition	
		The proposed changes introduce the definition of Balancing Submission in the Glossary to the	
		Rules. System Management believes this	
		definition attempts to impose an obligation on	
L		Lacininion altempts to impose an obligation on	<u>l</u>

	Submitter	Comment / Change Requested	IMO Response
		participants to submit the correct values.	
		However there is no penalty attached for not	
		submitting the available capacity. In the	
		absence of a settlement incentive or a civil	
		penalty, SM questions how the IMO intends to	
		enforce this obligation, which is central to the	
		operation of the Reserve Capacity Mechanism	
		Also, drafting appears extremely crude. The	
		words 'to the maximum' are unclear. System	
		Management believes it should be a defined	
		term - 'Maximum Supply Capability' is the	
		standard way of defining this concept.	
		SM queries whether, given the risk and the value	
		at stake, the IMO has given appropriate thought	
		to the removal of this clause.	
		Resolution	
		An enforceable obligation to offer capacity to the	
		market is a central feature of the RCM and is	
		essential.	
29	System Management	Risk 2: 7A.1.13	The IMO notes that the clause which System Management is referring to refers to the
		IMO determines a timeline not consistent	setting of the gate closure period. The IMO assumes that System Management is
		with SM's information requirements for	reiterating its comment from the submission on the Rule Change Proposal where it is
		secure power system operation.	referring to clause 7A.1.13 (comment 9 in the Draft Report) - which was changed to
			clause 7A.1.12 in the Draft Report.
		Description	
		As the IMO is surery Custom Marsarantis	The clause 7A.1.12 is limited to timelines in chapter 7A of the Amending Rules which are
		As the IMO is aware, System Management's	bound by a "reasonable practical" deadline. The IMO further notes that in setting the
		primary responsibility is to maintain the security	deadlines it must go through a Procedure Change Process which will ensure good
		of the power system. Discharging that responsibility requires both timely access to	governance. The IMO has requested System Management to identify any areas which remain of concern, specifically the IMO requested comment from System Management on
		information and freedom to act where	if any of the timelines the IMO has proposed in the IMS Interface Procedures are not
<u> </u>	l	miormation and needon to act where	I if any or the unrelines the livio has proposed in the livio interface Procedures are not

	Submitter	Comment / Change Requested	IMO Response
		necessary.	consistent with System Managements information requirements for secure power system
			operation and/or there are outstanding clauses with a "reasonably practical" deadline
		An operational risk that arises when the IMO	which need to be clarified). System Management is yet to respond to the IMO with any
		determines a timeframe that is not consistent	risk areas.
		with SM's requirements for real time operation of	
		the Power System.	
		SM submits that the IMO seeks authority that it	
		is neither skilled, nor incentivised, to carry out in	
		a manner that supports SM to perform its functions under the Elec. Industry Act (2004).	
		Turictions under the Elec. Industry Act (2004).	
		Resolution	
		The amendments talk about timeframes "may be	
		prescribed in a market procedure". This does	
		not give any more certainty to SM that it will be	
		provided with information that it requires for	
		power system operation in the timeframes within	
		which it is required.	
30	System Management	Risk 5: 7.6.1B	Refer to the IMO responses to issues 20 and 21 above and issue 1 in the notification of
		Non-Compliant dispatch process	the further consultation period.
		Description	
		Dispatch criteria must be unambiguous and	
		capable of being expressed in a series of closed	
		logic statements. Programming can 'take into	
		account' ramp rate limits, but cannot make a	
		value judgement on "Standing Data Limitations".	
		Likewise 'reasonable' and 'best' are subjective	
		statements that cannot be translated into the	
		dispatch algorithm.	
		Where generators (i.e. not just specifically LFAS	
		providers) take automatic action (e.g. governor	

	Submitter	Comment / Change Requested	IMO Response
		response) following a significant system event they are providing a benefit to system stability and should be rewarded. However, SM cannot issue a Dispatch Instruction in advance or after the fact.	
		Resolution  Revised drafting included in rule change submission form. Closed pending acceptance by the IMO of redrafted criteria.	
31	System Management	Risk 6: 7.7.3(d)  SM can't dispatch SG's on islanded systems  Description  On occasion, SM will direct an islanded	The IMO reiterates its position from the Draft Rule Change Report (response to System Management comment 13) that even in the event that System Management does not have a Dispatch Support Contract in place there is still scope for System Management to dispatch generators on islanded systems under its powers in an emergency operating state.
		generator to look after frequency control. The Min MW instructions provide 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.	Furthermore, absent of a Dispatch Support Contract, if System Management has to use its powers to dispatch an islanded generator, the generator will receive constrained on (or off) payments for any excess (or reduced) energy generation.
		SM recognises the sensitivity on this issue but in the absence of a practical alternative is unable to accept this amendment. At a high level, the process is relatively straightforward; System Management could document its application and the guidelines in a PSOP.	
		Whilst SM has the ability to direct, this reflects the risks on participants shoals they be required to perform frequency control services.	

	Submitter	Comment / Change Requested	IMO Response
		Resolution	
		IMO has proposed SM use DDS contracts for	
		this purpose. Estimated timeframe of delivery is	
		late 2012 at the earliest for submission to the	
		ERA for its approval, in the mean time	
		participants have no mechanism to be paid.	
32	System Management	Risk 9: 2.36.10(f)	The IMO has amended the clause System Management is referring to so as to state that
			in the event that agreement on an amended interface cannot be reached the IMO and
		SM breaches 2.36.10(f) (IMS Interface	System Management will continue to operate as per the current IMS Interface Procedure
		Document)	until a procedure change can go through.
		Description	and a processing country of the agent
		Description	
		The discretion sought by the IMO in this	
		amendment would not be required if the rule	
		change process retained the profile that it	
		currently has. This rule appears to require	
		systems be built to an amended spec, before	
		that spec and the associated business process	
		have been determined.	
		nave been determined.	
		SM submits that this amendment is neither	
		prudent nor cost effective. No guidance or	
		governance over the circumstances in which the	
		IMO would exercise this discretion. Shares	
		systems are likely to exist well into AR3, neither	
		the IMO nor SM has the ability to dictate how	
		these systems should be configured.	
		Resolution	
		Action with IMO to investigate amendments to	
		remove this clause which would address SM	
		concerns.	

	Submitter	Comment / Change Requested	IMO Response
33	System Management	Risk 11: 7A.3.6  SM cannot calculate the SOI, EOI quantities  Description  In relation to older facilities that do not have SCADA visibility clause 7A.3.6(a) should be amended to '(a) the SOI Quantity and the EIO Quantity for each Balancing Facility that is visible to the System Management SCADA.'  Resolution	The IMO notes that the Balancing Price will be calculated based on SCADA data within a week (at the latest) of the end of the Trading Day. As such it is not possible for the IMO to use meter data in the determination of the price as these values are not provided until a month after the Trading Day (in time for settlements). The IMO considers that given the lack of visibility of actual generation levels by these facilities System Management is in the best position to provide estimates of these facilities generation levels as System Management are required to dispatch the system and should know the expected generation level of each unit.  The IMO notes System Managements proposed approach to estimating the facilities output and notes that any such proposal will need to be reflected in the relevant PSOP and hence be subject to the Procedure Change Process.
		IMO have confirmed they will not be using meter data to provide these quantities. SM has no information to base these calculations on and therefore will incorporate a formulation SOI = EOI = RCOQ/2 into PSOP.	System Management has suggested a solution in its submission which clearly details that System Management can calculate SOI and EOI quantities.
34	System Management	Risk 14: 7.6.2AA(b)  Previous day's BMO is not compatible with real time conditions  Description  MR 7.6.2AA contemplates circumstances where the relevant Balancing Merit Order may not be available to the IMO. It provided that the	The Amending Rules only require for this "outdated" BMO to be used where there has been a breakdown of the market systems for more than 14 hours. The IMO notes that the real time updating of generators' availability to System Management allowed under MR 7.7.6 and 7.10.3 (as detailed and enhanced in response to issue 1 in the Further Consultation Report) enables System Management to account for any discrepancies between the BMO and realtime conditions. The IMO also notes that should there be a system Security issue arising from the requirement to use the BMO, System Management have the overriding ability to dispatch <i>not</i> in accordance with the BMO. Therefore the IMO does not see where the "risk" System Management is referring to lies.
		Balancing Merit Order may be in specified circumstances "the most recent Forecast BMO provided for the same Trading Interval for the previous day" (MR 7.6.2AA(d)). In these circumstances the Balancing Merit Order may be out of date and therefore the fairly rigid scheme in MR 7.6.1B and 7.6.1C will not be appropriate.	Furthermore, The IMO reiterates its response to System Management comment 20 from the Draft Rule Change Report. "The IMO notes that using the most recent BMO or forecast BMO for the same interval matches the pricing which will occur in a situation where the IMO is not able to develop a BMO or forecast BMO and therefore contends that the clause as drafted is consistent with the Balancing Market Objective that pricing and dispatch be consistent."

	Submitter	Comment / Change Requested	IMO Response
		Based on history of market system availability	
		issues, it is almost certain that an interruption of	
		data flow will occur within the first year of the	
		new market.	
		The most recent BMO available is likely to be	
		closer in terms of accuracy.	
		Resolution	
		Risk likelihood downgraded to rare.	
35	System Management	Risk 15: 3.10.1	The IMO has determined to amend clause 7B.4.1 (b) as notified in the Further
		SM unable to manage forecast risk in LFAS	Consultation Report to rectify this issue.
		q's	
		Description	
		System Management will need additional LFAS	
		under some circumstances (e.g. bad weather	
		coming in; plant commissioning). It is unclear	
		whether the proposed amendments provide for	
		this.	
		Resolution	
		Close pending contingent on IMO making	
		amendment to 7B4.1(b) (SM reasonably	
		considers).	
36	System Management	Risk 17: 7B.2.18 and 7B.2.19	The IMO has determined to amend clause 7B.2.17 to rectify this issue. Refer to the
		Short term LFAS shortfalls	drafting in Appendix 4.
		Description	
		The proposed amendment requires LFAS	

	Submitter	Comment / Change Requested	IMO Response
		facilities to only advise the IMO if they are	
		unable to meet requirements. The requirement	
		then for the IMO to pass on this information "as	
		soon as practicable" is not adequate for	
		information needed for real-time management of	
		the power system.	
		The drafting is inconsistent with the IMO's	
		design brief	
		(http://www.imowa.com.au/f4768,1615220/2011	
		0804 -LFAS design.pdf) which states "at some	
		time after LFAS Gate Closure the facility	
		experienced a reduction in their ability to provide	
		their LFAS Enablement Band (either partially or	
		wholly), it would be the LFAS providers	
		responsibility to inform SM (if the failure	
		occurred during the 6 hour Selection Horizon)."	
		(p4).	
		Resolution	
		Nosolullon	
		Close pending, contingent on IMO making	
		amendments	
37	System Management	Risk 20: 7.5.7 Glossary	The IMO reiterates its response to System Management comment 26 in the Draft Rule
	, ,		Change Report:
		System Management must account for fuel	
		decs in its Dispatch engine.	"The Balancing market design does not require any changes to the current fuel
		Description	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
		Transparency – it is unclear as to what System	the fuel in use is to change, are to be maintained.
		Management is required to do with fuel	
		declarations. Fuel declarations change the	In relation to the Fuel declarations sent from the IMO to System Management, this
		standing data to be used in terms of ramp rate	process is being continued at System Management's request.
		and max capacity. It is unclear as to whether	

	Submitter	Comment / Change Requested	IMO Response
		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	
		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.	
		Resolution	
		Risk stands IMO confirms this will not be deleted from the rules.	
38	System Management	Risk 22: 6.11.1	The IMO notes System Managements issue. The IMO intended to remove this clause
		SM is provided with comm/decom times too	from the proposed Amending Rules in response to System Managements comment 28 in
		late	the Draft Rule Change Report. The IMO can confirm that this clause has been removed
			from the final Amending Rules.
		Description	
		Removing clause 6.11.1(b)ii will reduce System	
		Management's ability to manage power system	
		security. Some generating units have step-up	
		times in excess of 16 hours and hence the loss	
		of a few hours' notice of intended	
		synchronisation is potentially significant.	
		Resolution	
		Close pending contingent on IMO, reinstating	
		clause 6.11.1(b)ii.	
39	System Management	Risk 23: 7.3.2. 7A.2.10	The IMO reiterates its response to System Management comment 29 in the Draft Rule
		Plant tring ofter gets sleeves and bes	Change Report:
		Plant trips after gate closure and has provided advice under 7.3.2 but not 7A.2.10.	
		provided duvide diluci riole but not rale.	"A principle of the new Balancing market is that System Management dispatch in
			accordance with the BMO. Market participants are required to reflect forced outages in

	Submitter	Comment / Change Requested	IMO Response
		Description	their balancing submission and are able to adjust these within the gate closure window.
		Clauses 7.3.1 and 7A.2.10 both affect the currency of the data System Management	Market Participants are required to advise SM of any forced outages.
		considers in real time dispatch and there is ambiguity between the two clauses. System Management needs to be able to take account of forced outage information when issuing dispatch instructions potentially in a shorter	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 issue a dispatch instruction and be able to interpret the disclosure of a forced outage as a technical refusal to comply with a Dispatch Instruction.
		timeframe than is required to update a balancing submission. A situation where plant is declared to have reduced availability prior to formulation	SM is then able to immediately issue a Dispatch Instruction to the next generator in the BMO under clause 7.7.6(b).
		of final BMO must be able to be accounted for by SM	This concept is reflected in the Dispatch PSOP prepared and presented by System Management at the Procedures Workshop held on 8 November 2011."
		(System Management would identity if we are using that power when we issue the dispatch instruction and would immediately follow it with a second dispatch instruction with which the participant could comply).	Furthermore, the IMO has made further amendments to the clauses relating to the updating of availability to System Management in real time (see issue 1 in the Further Consultation Report).
		Resolution	
		Unresolved	
40	System Management	Risk 30: 3.9.1(c)  SM breaches rule 6.17.6(b) – DL's	The IMO notes that there is no obligation on System Management in relation to clause 6.17.6(b) and as such there can be no risk associated with System Management breaching this clause.
		Description	
		The proposed change prevents dispatchable load from entering LFAS market if it determines	
		it wants to do so – This proposed change states	
		that a dispatchable load is unable to provide LFAS and may imply it may not be a Non-	
		Balancing Facility. It is not in accordance with	

	Submitter	Comment / Change Requested	IMO Response
		market objective 1.2.1(c) In the draft rule change	
		report, IMO responded that is it not feasible to	
		create a market design for a facility that does not	
		exist. SM concurs and on that bases requests	
		deletion of 6.17.6(a).	
		Resolution	
		Still unresolved consequence downgraded by	
		use of manual processing to meet requirements	
		if DL should enter market.	
41	System Management	Risk 50: 7A4.2	The IMO has amended clause 7A.4.2 to allow for an automatic extension of the timeline
		SM does not meet 5 day requirement	by a further 5 Business Days in situations where System Management has not responded
		ciii acco net mest e aay requirement	within the first 5 Business Days
		Description	Furthermore, on noted in the Custom Management submission, the IMO has also
			Furthermore, as noted in the System Management submission, the IMO has also
		The decision itself will be reasonably	amended the rules to allow VSAF to provide back up LFAS.
		straightforward, but it SM (for any reason)	
		misses this deadline; the potential is a major part	
		of our Fall Back AS capabilities may be removed	
		from the VE portfolio. The rules are not clear	
		about how this situation would be resolved, but if	
		it wasn't it could be a major threat to PSS. SM	
		will need to manage this risk carefully in any	
		case but recommends that it would be strongly	
		advisable for the default response to reject	
		rather than approve VE's.	
		Resolution	
		Risk downgraded by extending time and	
		including Verve to provide AS. Still unresolved	
		no agreement reached.	
42	System Management	Risk 51: 7.10.5	The IMO reiterates it response to System Management comment 31 and 5 in the Draft

	Submitter	Comment / Change Requested	IMO Response
		SM prevented from taking corrective action where a Generator is operating outside of tolerance  Description	Rule Change Report, the IMO response to comments 4, 20 and 21 above and issues 1 and 2 in the notification for the further consultation period. The IMO believes that the Amending Rules allow System Management to dispatch whichever facilities and in whichever manner System Management believes is necessary to maintain System Security.
		Section 7.10.25 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 of the Tolerance Range will be the result of an incident resolution of which will be time-critical. In real time operations, it is not the explanation or the reason for the non-compliant operation that is important; it is the resolution of the issue.	
		System Management believes that the provision of reasonable tolerances provides generators the latitude to manage themselves without compliance being unduly onerous. SM could consider sending an automated communication to generators who are approaching the tolerance limit if that will provide comfort to Market Participants.	
		Resolution  IMO has confirmed they will not make amendments. Risk stands.	
43	System Management	Risk 53: EIA Regs, Glossary	The IMO reiterates its response to System Management comment 46 from the Draft Rule

	Submitter	Comment / Change Requested	IMO Response
		Reserve Capacity Mechanism fails in realtime (after balancing submission)	Change Report:
		Description	"If System Management is concerned that a Facility's capacity is not available there is no lessening of System Management's existing powers to require a Facility to prove its
		The risk relates to the removal of real time compliance penalty. There is no compliance monitoring of real-time capacity. This was proposed to be achieved by a "Reserve Capacity Operational Test". The proposed rules do not	operational capacity by the proposed Amending Rules. If in System Management's opinion the uncertainty about the capacity has the potential to lead to a system security issue, the proposed rules (specifically clauses 7.6.1B and 7.6.1C) allow System Management to test the capacity (if it believes that is the best course of action) or use different capacity as outlined in comment 6 above."
		have this feature included.  Resolution	As such, the IMO does not see that there is a risk that the Reserve Capacity Mechanism will fail in real time. The IMO does not propose to amend the final Amending Rules in response to this comment.
		The risk to system security of removing the Operation Test was not included in the original register.	
44	System Management	Risk 54: 7A.3.2  When BMO differs from physical dispatch due to non inclusion of facility restrictions  Description	The RDIWG decision to use simple price based balancing submissions, as in a number of other markets means that the BMO cannot incorporate all facility restrictions directly. It is the responsibility of Market Participants to structure their Balancing Submissions in such a way so as to not be dispatched when an internal constraint is binding (by submitting at the Price Caps).
		Ramp rates and sync times will not be considered in the balancing forecast. This means that the balancing forecast may be physically infeasible. These two 'simplifications' risk generators being sent forecast that are materially different from the levels that they will actually be required to provide in real time leading to increased compliance risk and risks to system security. In addition it is unclear if the unavailability declarations are taken into account in the BMO.	In the case where a Market Participant becomes aware that it is going to, or likely to be dispatched (based on iterative market forecasts or a System Management Dispatch Advisory) and the facility cannot be dispatched due to an internal constraint, the Market Participant must inform System Management – System Management will then be able to take this information into account when issuing Dispatch Advisories.  The IMO has approached System Management to secure detailed SCADA information that will allow the IMO to include Ramp Rates in forecast BMO's.

	Submitter	Comment / Change Requested	IMO Response
		Resolution	
		Unresolved	
45	System Management	Risk 194: 7.7.6(b)	The IMO has amended the wording associated with the "reduced extent" statement in
		Reduced extent dispatch capability threatens frequency control	clause 7.7.6(b). Please refer to issue 1 in the Further Consultation Report.
		Description	
		When a participant advises it cannot meet a dispatch instruction, it can advise it can do so to a "reduced extent". If a facility is asked to go up,	
		it can advise it can go up to a lesser value. This is okay, however when it is asked to go down	
		there is 2 interpretations, can it advise of a value	
		below the dispatch quantity (reduced output) or	
		can it advise of a value above the dispatch	
		quantity (a reduced reduction)? This is particularly important for DI to belie min gen	
		level.	
		Resolution	
		Clarification of obligations in rule 7.7.6(b). A	
		revised drafting is provided in draft rule change	
		proposal submission form.	
46	System Management	Risk 195: Appendix 1 Standing Data	The IMO considers that to move what standing data is required from Market Participants
		But the Periods	from the Market Rules and into a PSOP is outside of the scope of this Rule Change
		Real time dispatch requires more and structures standing data to enable dispatch	Proposal - the IMO has informally requested from SM a list of additions it deems
		engine to function	necessary to incorporate into standing data for Balancing Market Commencement,
		_	however any further change to the standing data provisions needs to be subject to a
		Description	separate formal rule change proposal.
		Standing Data does not allow accurate	
		implementation of dispatch engine resulting in	

	Submitter	Comment / Change Requested	IMO Response
		excessive out of merit generation.	
		Resolution	
		New rule that allows Standing data requirements	
		are in a form that SM specifies in a PSOP to	
		allow physical constraints (e.g. no go zones and	
		start up profiles) to be modelled.	
47	System Management	Risk 196: 7.6.1B  There is a conflict in the rules as to what data has priority standing data or balancing submissions	The IMO notes that the Draft Rule Change Report ensured that balancing submission data was to be used in priority to standing data limitations. The onus is on Market Participants to structure Balancing Submissions to avoid internal constraints. This was achieved by making clause 7.6.1 "subject to 7.6.1C".
		Description	However, at the request of System Management, the IMO has amended the Market Rules to preserve the "sanctity" of the technical envelope. Please see the changes to clause
		It is unclear which data is to be used, standing or	7.6.1 and 3.2.5.
		balancing submission. Resulting in unclear obligations and system security risk. Resolution	The IMO considers the changes have the same outcome as the rules proposed in the Draft Rule Change Report in respect of System Managements dispatch obligations.
		New rule to state that balancing submission overrides standing data (ramp rate and max	
		capacity) for the duration of the submission.	
		Suggest new rule 7.6.1BA. System Management must deem the Balancing Merit Order and	
		Forecast Balancing Merit Order information to	
		constitute changes to standing data.	
48	System Management	Risk 198: 7A.3.14	The IMO considers that System Management already has the ability to request this
		The lack of participant data prevents accurate forecasts of non scheduled generation causing inaccurate price	information under 7.7.5B.
		Description	
		Inaccurate forecasts are made of intermittent	

Submitter	Comment / Change Requested	IMO Response
	generation because they are not required to give	
	modelling data to SM.	
	Resolution	
	New rule included to require intermittent (non-	
	scheduled) generators > 10 MW to give SCADA	
	stream to SM suggest 7A.3.14A A Non-	
	scheduled Generator must provide System	
	Management with the information specified in	
	the Power System Operating procedure to	
	support System Management's calculation of the	
	quantity described in clause 7A.3.14.	

## APPENDIX 2. RESPONSES TO SUBMISSIONS RECEIVED DURING THE FURTHER CONSULTATION PERIOD AND RESULTING CHANGES TO AMENDING RULES

Note that this Appendix contains changes which the IMO is making to the Amending Rules in response to further consultation process submissions. The full set of Amending Rules is contained in Appendix 4.

## Landfill Gas and Power Pty Ltd

	Submitter	Comment / Change Requested	IMO Response
1	Landfill Gas and Power Pty Ltd	LGP supports the further proposed changes.	The IMO notes LGPs ongoing support for the continued evolution of the WEM.

## Verve Energy

	Submitter	Comment / Change Requested	IMO Response
1	Verve Energy	Verve has the following comments on the revisions to the proposed Revised Amending Rules issued after the conclusion of the second consultation period:	Amended as per details in Appendix 3.
		6.17.3(e) phrase 'any Downwards LFAS Backup' should be 'any Upwards LFAS Backup.'	
		6.17.5(b) phrase 'Constrained On Compensation' should be 'Portfolio Constrained on Compensation' to differentiate between 6.17.5(b) and 6.17.3(b).	
		6.17.5(e) second one should be 6.17.5(f).	
		6.17.6A(d) PCoffQN should be PConffQN + 1, PCoffPN should be PCoffPN + 1.	

	Submitter	Comment / Change Requested	IMO Response
		6.17.6A(f)(i) PCoffG1 should be PCoffQ1.	
2	Verve Energy	7A.2.15A As discussed at the 6 February RDIWG Meeting, this clause is difficult to follow and needs to be revised for clarity.	Inclusion of additional provisions that significantly improve the IMO's ability to successfully prosecute contraventions of the misleading conduct provisions of the new balancing market rules.
			Amended as per details in Appendix 3.
3	Verve Energy	Verve Energy requested clarification regarding a	Amended as per details in Appendix 3.
		number of clauses.	

## APPENDIX 3. ADDITIONAL CHANGES TO THE AMENDING RULES

This Appendix outlines further material changes required to Amending Rules from those published by the IMO on 6 December 2011 in the Draft Rule Change Report which were not outlined in the Further Consultation Report published by the IMO on 27 January 2012 (for more information please refer to section 3.6 of this Final Rule Change Report). These further changes have been initiated by the IMO or have resulted from matters raised by Rule Participants. Note that the IMO has rationalised the clause numbering to ensure all clauses are numbered consistently and consecutively rather than in the format "1A.1A.1(Aa)(Ai)". These changes are not detailed here.

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

Chapter	Clause	As Amended	Comments (if any)
All	Various	The IMO has made various minor and typographical changes to improve the integrity and clarity of the proposed Amending Rules, which appear in the proposed Amending Rules.	

1 (Introduction)	1.10	Due to size restraints of the cell, refer to Appendix 4 for drafting	These new clauses have been inserted to support the transition from the existing arrangements to the new Balancing and LFAS markets. These clauses clarify that Rule Participants:
			need to comply with certain clauses of the amended Market Rules, before the Balancing Market Commencement Day;
			do not need to comply with specified clauses of the existing Market Rules immediately before the Balancing Market Commencement Day; and
			must continue to complete obligations under relevant clauses the existing Market Rules for Trading Days prior to the Balancing Market Commencement Day, even where the obligation is to be completed after the Balancing Market Commencement Day.
2 (Administration)	2.17.1	Due to size restraints of the cell, refer to Appendix 4 for drafting	Clause amended to reflect ability for SM decisions to be reviewable.  This is reflected in the Electricity Industry Act s125(1)

2 (Administration)	2.36.1	2.36.1.	determ LFAS F	the IMO uses software systems to determine Balancing Prices, to ine Non-Balancing Facility Dispatch Instruction Payments, to determine Prices, in the Reserve Capacity Auction, STEM Auction or settlement ses, it must:	Clause amended to ensure good governance around IMO changes to systems. This is consistent with processes for STEM and the RCM Auction.
			(a)	maintain a record of which version of software was used in producing each set of results, and maintain records of the details of the differences between each version and the reasons for the changes between versions;	
			(b)	maintain each version of the software in a state where results produced with that version can be reproduced for a period of at least 1 year from the release date of the last results produced with that version;	
			(c)	ensure that appropriate testing of new software versions is conducted; ensure that any versions of the software used by the IMO have been certified as being in compliance with the Market Rules by an independent auditor; and	
			(e)	require vendors of software audited in accordance with clause 2.36.1(d) to make available to Rule Participants explicit documentation of the functionality of the software adequate for the purpose of audit.	
2 (Administration)	2.36.10(b)		<u>(b)</u>	if agreement is reached under clause 2.36.10(a) within five Business  Days of the first meeting, then the IMO and System Management must seek to develop a Procedure Change Proposal accordingly and, in the interim, act in accordance with that agreement:	Amended for clarity

2 (Administration)	2.36.10		(c) (d)	officer of the IMO and of System Management must meet as soon as possible and seek to agree an amendment to the IMS Interface Market Procedure that addresses the inadequacy and which is consistent with these Market Rules, and develop a Procedure Change Proposal accordingly:  if agreement is reached under clause 2.36.10(c) within five Business Days of the first meeting of the Authorised Officers, then the IMO and System Management must seek to develop a Procedure Change Proposal accordingly and, in the interim, act in accordance with that agreement; and  if no agreement is reached under clause 2.36.10(c) within five Business Days of the first meeting of the Authorised Officers, then the IMO, acting reasonably, must, as soon as practicable, develop and draft a Procedure Change Proposal seeking an amendment to the IMS Interface Market Procedure that addresses the inadequacy and which is consistent with these Market Rules.	Clause amended to delete sub clause (f). Further amendments to reflect System Management and IMO maintaining status quo until the IMS Interface Procedure goes through the change process. Wording also updated to remove references to a Procedure Change Proposal being 'accepted or rejected'.
3 (Power System Security and Reliability)	3.11.7A	3.11.7A.	provide a stan	lectricity Generation Corporation Verve Energy must make its capacity to e Ancillary Services from its facilities available to System Management to dard sufficient to enable System Management to meet its obligations in dance with these Market Rules.	Clause amended to reflect that Verve Energy us the default Ancillary Service Provider.

3 (Power System Security and Reliability)		Due to size restraints of the cell, refer to Appendix 4 for drafting	Clause amended to allow the ERA to determine the initial margin values for the period 1/07/12-30/06/13, however in the event that the ERA does not determine the initial margin values by 01/04/12 then the IMO will determine the initial margin values.
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3 (Power System Security and Reliability)	3.2.5 and 7.6.1	3.2.5.	ne Technical Envelope represents the limit perated in each SWIS Operating State. In echnical Envelope under clause 3.2.6, Sys	establishing and modifying the	Clause amended at the request of System Management to maintain 'sanctity' of technical envelope. The IMO notes that this does not affect the dispatch outcomes.
			respect all Equipment Limits but or inconsistent with the dispatch of Basequipment Limits, would be dispatce	llancing Facilities that, but for the	
			) respect all Security Limits;		
			respect all SWIS Operating Standa	rds;	
			) respect all Ancillary Service standa	rds specified in clause 3.10; and	
			) take into account those parts of the	SWIS which are not designed to be	
			operated to the planning criteria in	the relevant Technical Code.	
		7.6.1.	ubject to clause 7.6.1B, Wwhen scheduling structions or Dispatch Orders to the Registeneration Corporation and issuing Dispatch articipants, System Management must see escending order of priority:  1	tered Facilities of the Electricity h Instructions to other Market ek to meet the following criteria, in thin the Technical Envelope licable SWIS Operating State; ing on the SWIS; and eet the Ancillary Service standards	

6 (The Energ Market)	( 6.11.1(b)	(b)	in respect offer each Scheduled Generator and Dispatchable Load registered by the Market Participant:	Changes made to clause as per Draft Rule Change Report
			i. the name of the Facility;	
			ii. for a Scheduled Generator, the intended times of synchronisation and de-synchronisation, expressed to the nearest minute, during the Trading Day;	
			the <u>target</u> energy, in <u>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;	
			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	
			42. must not exceed the expected capability of the Facility at that time, allowing for de-ratings and outages; and	
			iv. the Ramp Rate Limit, for each Trading Interval the target megawatt output of each Facility at the end of each Trading Interval included in the submission; and	
			v. the target MW level, which must be consistent 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:	

6 (The Energy Market)	6.15.1, 6.15.2, 6.15.3, and 6.16.1A	Due to size restraints of the cell, refer to Appendix 4 for drafting	Updated as per issues 4 and 5 in Further Consultation Report clauses have been further amended to:  • clarify that only the TES calculations are calculated using SCADA and that Out of Merit Quantities are calculated using Meter Data (where available) – through the addition of clauses 6.15.3 and 6.15.4.; and  • enable the inclusion of energy from tranches above the balancing price in situations where a facility which, at the beginning of an interval, is operating at a level it should be given the balancing price – through the inclusion of 6.15.1(a)(ii) and 6.15.2(a)(ii)
6 (The Energy Market)	6.16A and 6.16B	Due to size restraints of the cell, refer to Appendix 4 for drafting	Clauses amended to ensure that energy associated with TES is not double counted in the calculation of Out of Merit Quantities.

6 (The Energy Market)	6.17.5C	6.17.5C. Where the IMO is unable to attribute:  (a) Upwards Out of Merit Generation in accordance with clauses 6.17.3 or 6.17.5, as applicable: or  (b) Downwards Out of Merit Generation in accordance with clauses 6.17.4 or 6.17.5A,  for a Market Participant, the Market Participant is not entitled to be paid for any Upwards Out of Merit Generation or Downwards Out of Merit Generation, as applicable.	Clause added to further clarify that Clarifying the treatment of any excess Out of Merit Generation which cannot be allocated to a Balancing Price-Quantity Pair. As noted in the draft report (issue 4) this could happen if a Facility exceeded its Ramp Rate Limit (RRL) because TES calculations are limited by submitted RRLs. In this regard, it would be appropriate that any excess Out of Merit Generation only receives the Balancing Price.
6 (The Energy Market)	6.17.6	Due to size restraints of the cell, refer to Appendix 4 for drafting	Amended to allow for the possibility that a participant has more than one Dispatch Instruction and to cap and floor the eligible quantities a Dispatchable Load can be paid for (capped at the quantity in the Dispatch Instruction and floored at providing nothing).

7 (Dispatch)	7.6.1	7.6.1.	Instruc General Partici	et to clause 7.6.1B, Wwhen scheduling and issuing dDispatching etions or Dispatch Orders to the Registered Facilities of the Electricity eation Corporation and issuing Dispatch Instructions to other Market pants, System Management must seek to meet the following criteria, in inding order of priority:	Amendment of clause so that 7.6.1 is subject to the ability for System Management to issue Operating Instructions in priority to Dispatch Instructions – this concept is already contemplated in clause 7.6.1B.
			(a) (b) (c)	to enable operation of the SWIS within the Technical Envelope parameters appropriate for the applicable <u>SWIS</u> Operating State; to minimise involuntary load shedding on the SWIS; and to maintain Ancillary Services to meet the Ancillary Service standards	
				appropriate for the applicable S <u>WIS</u> Operating State.	

3. 1	7 (Dispatch)	7.6A.2 (c) & (e)	1.	Corporation-Ve associated with 2. i. Gener Portfol	Management must provide to the Electricity Generation arve Energy by 12:30 PM4:00 PM on the Scheduling Day a Trading Day:  a forecast of the requirements for the Electricity ration Corporation energy in the Verve Energy Balancing lio, being a forecast of the whole of system energy ement less:	Change made to rule so that System Management is only required to provide the IMO with the non-scheduled forecast in subclause (c)(i) and not all of the information in the clause, as per intent of response to Collgar Submission in the Draft Rule Change Report.
Participants' Non-Scheduled Generators, including the aggregate forecast output of any Non-Scheduled Generators which are Stand Alone Facilities, for the Trading Day;  5  6- (e) System Management must provide to the IMO by 4:00 PM on the Scheduling Day associated with a Trading Day the aggregate forecast output of all Non-Scheduled Generators for the Trading Day, referred to in clause 7.6A.2(c)(i)(2): 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 of changes to the Dispatch Plan and forecast fuel requirement to reflect any changes required to accommodate Resource Plans or any changes in				3.	all Resource Plans associated with the Scheduled  Generators and Dispatchable Loads of other Market	
6. (e) System Management must provide to the IMO by 4:00 PM on the Scheduling Day associated with a Trading Day the aggregate forecast output of all Non-Scheduled Generators for the Trading Day, referred to in clause 7.6A.2(c)(i)(2); 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				4.	Participants' Non-Scheduled Generators, including the aggregate forecast output of any Non-Scheduled Generators which are Stand Alone Facilities, for the	
			<del>6.</del>	(e) System No Scheduling Day output of all No in clause 7.6A. with a Trading Dispatch Plan Corporation or to the Dispatch changes require	Management must provide to the IMO by 4:00 PM on the y associated with a Trading Day the aggregate forecast in-Scheduled Generators for the Trading Day, referred to 2(c)(i)(2); By 2:30 PM on the Scheduling Day associated g Day System Management must either confirm the in specified in (c) with the Electricity Generation notify the Electricity Generation Corporation of changes the Plan and forecast fuel requirement to reflect any	

7 (Dispatch)	7.7.2		Dispatch Instruction issued to a Non-Balancing Facility or to a Balancing ity Out of Merit under clause 7.6.1C(c) must:  be consistent with the latest data described in clause 7.1.1 available to System Management at the time the Dispatch Instruction is determined; be applicable to a specific Registered Facility; and be issued at a time that takes into account the Standing Data minimum response time for the Registered Facility.	Included cross-reference to 7.6.1C(c) to limit the use of standing data limitations in the issuance of Dispatch Instructions. This ensures that the BMO quantities are adhered to when possible.
7 (Dispatch)	7.7.3	Due to size restra	ints of the cell, refer to Appendix 4 for drafting	Clause added to ensure that Non Scheduled Generators are not restricted in output when below the balancing price.
7 (Dispatch)	7.7.3(e)	(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 Datathe time at which the ramp rate specified in clause 7.7.3(d) is required to commence.	Clauses added to ensure that a Dispatch Instruction contains all information required to conform to System Managements required dispatch profile.

7 (Dispatch)	7.7.6A, and 7.10.3A	7.7.6A.	Where a Market Participant has notified System Management in accordance with clause 7.7.6(b) that it cannot comply, or cannot fully comply with a Dispatch Instruction:	Clauses amended to provide clarity regarding Market Participant obligations.
			(a) the Market Participant must provide System Management with the reason it cannot comply or cannot fully comply with the Dispatch Instruction; and	
			(b) the reason provided by the Market Participant under clause 7.7.6A(a) must fall within clause 7.10.2(a).	
		7.10.3A.	Where a Market Participant has advised System Management under clause 7.10.3 that it cannot comply or fully comply with a Dispatch Instruction:	
			(a) the Market Participant must provide System Management with the reason it cannot comply or cannot fully comply with the Dispatch Instruction; and	
			(b) the reason provided by the Market Participant under clause 7.10.3A(a) must fall within clause 7.10.2(a).	
7 (Dispatch)	7.7.6B (b)		(b) where the Market Participant cannot comply with the quantity required in the Dispatch Instruction:  i. the reduced quantity (if any) and associated ramp rate with	Updated as per issues 1, 2 and 6 in Further Consultation Report. Further amended to provide clarity regarding Market Participant obligations.
			which the Market Participant can comply; and  ii whether the Market Participant needs to desynchronise the Facility in order to provide the reduced quantity,	

7 (Dispatch)	7.10.2(b)	<u> </u>	Facility was physically unable to maintain the ramp rate specified in Dispatch Instruction but:  the actual output of the Facility did not, at any time the Dispatch Instruction applied, vary from the output specified in the Dispatch Instruction by more than the applicable Tolerance Range or Facility Tolerance Range; and the average output over a Trading Interval of the Facility was equal to the output specified in the Dispatch Instruction.	Updated as per issues 2 in Further Consultation Report. Further amended to provide clarity regarding Market Participant obligations.

7 (Dispatch)	7.10.5				Updated as per issues 1, 2 and 6 in
		7.10.5.	•	'.10.5A, wWhere System Management considers that a	Further Consultation Report. Further amended to provide clarity regarding Rule
			· ·	has not complied with clause 7.10.1 in relation to any of its	Participant obligations.
			Registered Facilitie	es in a manner that <u>is not within</u> :	
			(a) threatens	Power System Security or Power System Reliability;	
			(b) would requ	uire System Management to issue instructions to the	
			Registered	d Facilities of the Electricity Generation Corporation or	
			Registered	d Facilities covered by any Balancing Support Contract or	
			Ancillary S	Service Contract; or	
			(c) would requ	uire System Management to issue Dispatch Instructions to	
			other Regi	istered Facilities in accordance with clauses 7.6.3 or 7.6.4;	
			and		
			(i.a) the Tolera	nce Range determined in accordance with clause 2.13.6D; or	
			( <del>ii.</del> b) a Facility	Tolerance Range determined in accordance with clause	
			2.13.6E <sub>7</sub> o	or, if applicable, varied in accordance with clause 2.13.6H,	
			System Manageme	ent must as soon as reasonably practicable:	
			(c) warn the N	Market Participant about the deviation and request an	
			explanatio	on for the deviation; and	
			(d) if necessa	rry to meet the Dispatch Criteria, issue a new Dispatch	
			Instruction	n, Operating Instruction or Dispatch Order in accordance with	
			clause 7.6	cessation of the behaviour within a time that System	
			<del>Managem</del>	ent considers reasonable.	

7A (Balancing Market)	7A.1.2	7A.1.2. The IMO must determine the Balancing Market Commencement Day.	The IMO Board has proposed a date as the Balancing Market Commencement Date in this Final Rule Change Report. Therefore the IMO does not consider it appropriate to include hard coded dates in the Amending Rules.
7A (Balancing Market)	7A.2.1(b)	7A.2.1. A Market Participant must ensure that:  (b) it has made a Balancing Submission for all Trading Intervals in the Balancing Horizon for each of its Balancing Facilities; and	Amendment of wording for clarity

7A (Balancing Market)	7A.2.9(d) and 7A.2.9(e)	7A.2.9. Verve E	nergy, in relation to the Verve Energy Balancing Portfolio:	Amendment of wording to provide clarity for submission timing requirements. Also refer to Verve Energy submission (comment 12)
		<u>(d)</u>	may update its Balancing Portfolio Supply Curve in relation to any Trading Interval in the Balancing Horizon for which Balancing Gate Closure for that Trading Interval is more than two hours in the future:  i. by submitting its updated Balancing Portfolio Supply	
			ii. otherwise by submitting its updated Balancing Portfolio Supply Curve to the IMO within one hour after LFAS Gate Closure;	
		<u>(e)</u>	may update its Balancing Portfolio Supply Curve in relation to any Trading Interval in the Balancing Horizon for which Balancing Gate Closure is more than two hours in the future if a Facility in the Verve Energy Balancing Portfolio has experienced a Forced Outage since the last Balancing Submission; and	

7A (Balancing Market)	7A.2.9(c)iii	<u>7A.2.9.</u>	Verve E	inergy, in relation to the Verve Energy Balancing Portfolio:	Amendment of wording to refer to Ancillary Services and not LFAS.
			<u>(c)</u>	must:	
				<ul> <li>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;     </li> </ul>	
				ii. advise the IMO in a manner and form prescribed by the  IMO, the Facilities which are likely to provide the  quantities specified in clause 7A.2.9(c)(i); and	
				iii. for each completed Trading Interval, advise the IMO which Facilities actually provided the Ancillary Services referred to in clause 7A.2.9(c)(i) in the Trading Interval;	

7A (Balancing Market)	7A.2.10 and 7.7.3A(c)	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 of that Facility and the Ramp Rate Limit is accurate but no prices are altered, in	Clause amended to allow for Balancing Submissions to be updated if an Operating Instruction is issued, ensuring consistency between Balancing Price and Dispatch. Clause relating to the information required to be sent to Market Participants in an Operating Instruction also amended to ensure Market Participants can comply with this.
			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 of that Facility and the Ramp Rate Limit is accurate but no prices are altered, in respect of that Trading Interval, as soon as reasonably practicable; or  (c) if the inaccuracy is due to the Market Participant receiving an	
		7.7.3A.	Operating Instruction, may make a new, accurate Balancing Submission that reflects the Operating Instruction.  Each Operating Instruction must contain the following information:   (c) the time at which the response to the Operating Instruction is required to commence and an estimate of when the Operating Instruction will cease to apply;	

7A (Balancing Market)	7A.2.16; and 7B.2.14	Due to size restraints of the cell, refer to Appendix 4 for drafting	Updated as per issues 3 in Further Consultation Report. Further amended to improve readability of clauses as per IMO action form RDIWG meeting 18.
7A (Balancing Market)	7A.3.5(a)	7A.3.5. A Market Participant, other than Verve Energy in respect of the Verve Energy Balancing Portfolio, must make a new Balancing Submission within 30 minutes of the end of the Trading Interval in which the information is published under clause 7B.3.4(e) as follows:  (a) where its LFAS Price-Quantity Pair is selected under clause 7B.3.4(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 the quantity of capacity for the Facility specified in item 1(b)(xiii) of Standing Data is at the Minimum STEM Price; and	Clause amended to ensure that LFAS Facilities providing Upwards LFAS will not be dispatched below MinGen when required to provide LFAS

7A (Balancing Market)	7A.3.9, 7A.3.10, 7A.3.11 and 7A.3.12	7A.3.9.	Subject to clause 7A.3.12, 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.3.7, provide the IMO with any updated adjustments to the information provided under clause 7A.3.7 and the IMO must use any such updated SOI Quantity and EOI Quantity information to revise the Provisional Pricing BMO accordingly.	Clauses amended to enable IMO to extend time SM may provide data to determine Balancing Price.  Clauses also amended to ensure that the IMO is not required to determine and publish a final Balancing Price on a non Business day.
		7A.3.10.	The IMO must, subject to clause 7A.3.13, use the Provisional Pricing BMO determined under clause 7A.3.8(a), as revised under clause 7A.3.9, 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.3.8(b), that price is deemed to be the Balancing Price.	
		7A.3.11.	The IMO must, subject to clause 7A.3.12, publish the Balancing Price for each Trading Interval in a Trading Day on the next Business Day after the latest time specified in clause 7A.3.9.	
		7A.3.12.	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.3.7 or 7A.3.9, the IMO may extend the timeline prescribed in clause 7A.3.11 and/or 7A.3.9. No such extension may be given that would result in a delay of that timeline of more than two Business Days. The IMO must advise Rule Participants of any such extension as soon as practicable.	
7A (Balancing Market)	7A.3.18	7A.3.18.	The IMO must provide the information required under clause 7A.3.17 at approximately the same time as the IMO publishes the Balancing Forecasts under clause 7A.3.21.	Wording softened to allow for a degree of flexibility in system delivery times to ensure compliance with the clause is feasible

7A (Balancing Market)	7A.3.20 (as published in the Amending Rules proposed in the Draft Rule Change Report)			Clause removed as there is no longer a need to format the submission in relation to the Resource Plan as they do not have any financial ties.
7A (Balancing Market)	7A.4.2	-	to clause 7A.4.3, the IMO must, as soon as reasonably practicable aftering the information specified in clause 7A.4.1:  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;  if System Management advises within five Business Days that the IMO should reject the Facility as a Stand Alone Facility, reject the nomination;  if System Management does not provide any advice within five Business Days, allow System Management a further five Business Days to advise whether the IMO should reject the Facility as a Stand Alone Facility;  if the IMO does not receive any advice in accordance with clause 7A.4.2(b) or 7A.4.2(c), accept the nomination; and  (e) notify Verve Energy of the IMO's decision and, at the same time, notify the Market of any further time allowed under clause 7A.4.2(c).	Amendment of rule to incorporate an automatic extension of a further 5 Business days to the review process where System Management have not responded to a VSAF request, after which the Facility will automatically become a VSAF. The Market will be advised of any extension to the review period.

7B (Load Following Service Market)	7B.2.1 (b), 7B.2.2(b), 7B.2.10, 7B.3.5(a) &(e), and  Definions:  Balancing Gate Closure, and  LFAS Horizon: Means	Due to size restraints of the cell, refer to Appendix 4 for drafting	Clarification of LFAS Horizon definition in response to the Verve Energy submission (comment 12).

7B (Load Following Service Market)	7B.2.18 / 7B.2.19	7B.2.18.  7B.2.19.	Where an LFAS Facility is selected under clauses 7B.3.4(b) or 7B.3.4(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 and System Management respectively, whether the LFAS Facility is physically able to provide any LFAS in that Trading Interval and if so, the quantity, in MW.  Where an LFAS Facility is selected under clauses 7B.3.4(b) or 7B.3.4(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.2.18, provide the LFAS in the Trading Interval when required to do so by System Management under the Market Rules.	Rule updated Management.	to	include	System
7B (Load Following Service Market)	7B.3.1 (as published in the Amending Rules proposed in the Draft Rule Change Report)			Deletion of clause	e as pe	r draft rep	oort

7B (Load Following Service Market)	7B.3.4 (and removal of clause 7B.3.6 as published in the Amending Rules proposed in the Draft Rule Change Report)	Due to size restraints of the cell, refer to Appendix 4 for drafting	the revision to these clauses is to ensure that there are no arbitrary restrictions on which facilities can provide LFAS in a trading interval. The proposed change reduces the ability for a facility to be deemed ineligible to provide a level of LFAS in an interval and will hence provide a downward pressure on the LFAS prices. The IMO notes that the proposed change may mean that the marginal facility may be selected to provide less than the Minimum LFAS Quantity. However the IMO notes where this poses a security risk SM may choose not to activate the LFAS facility under 7B.3.8 (and must communicate such a decision to the market).  The IMO further notes the amendments reduce the ability for anti-competitive behaviour in the LFAS market.
7B (Load Following Service Market)	7B.3.6	7B.3.6. Subject to clauses 7B.3.7, 7B.3.8 and 7B.4.1, System Management must use the LFAS Facilities referred to in clause 7B.3.4(d) for meeting LFAS requirements in the associated Trading Interval in reasonable proportion to the quantities selected under clauses 7B.3.4(b) and 7B.3.4(c), as applicable, and those LFAS Facilities must provide those LFAS requirements.	Ensures energy production of LFAS Facilities proportioned to LFAS quantities cleared.

7B (Load Following Service Market)	7B.3.15, 7B.3.16 and definitions of LFAS	ZB.3.16 and efinitions of LFAS pwards erit Order and LFAS wnwards	the IMC	the IMO determines the forecast LFAS Merit Order under clause 7B.3.14, D must, to the extent it is reasonably able, within a Trading Interval, on the Market Web Site to each Market Participant:	Clause and definitions amended to ensure that the IMO is not required to publish all LFAS submissions in real time but only an anonymous LFAS Merit Order.  Clause also amended to improve
	Merit Order and LFAS downwards Merit Order		s Is	<u>(a)</u>	the LFAS Quantities expected to be provided by that Market  Participant for each Trading Interval in the Balancing Horizon as indicated by the forecast LFAS Merit Orders;
			<u>(b)</u>	any quantities provided to the IMO by System Management under clauses 7B.1.4 and 7B.1.5;	
			<u>(c)</u>	forecasts of LFAS Prices based upon the forecast LFAS Merit Orders;	
			<u>(d)</u>	forecasts of LFAS Upwards Merit Orders and LFAS Downwards Merit  Orders in the form of anonymous LFAS Upwards Price-Quantity Pairs  and LFAS Downwards Price-Quantity Pairs; and	
			<u>(e)</u>	forecasts of Backup Upwards LFAS Prices and Backup Downwards  LFAS Prices for each future Trading Interval in the Balancing Horizon.	
		7B.3.16.	Where t	the IMO determines the forecast LFAS Merit Order under clause 7B.3.14,	
				o must, to the extent it is reasonably able, within a Trading Interval, to System Management the forecast LFAS Merit Order.	
				erit Order: Means the ranked list of LFAS Submissions determined by the	
		IMO under		Merit Order: Means the ranked list of LFAS Submissions determined by	
		the IMO un			

7B (Load Following Service Market)	7B.4.1	(a) an LFAS Facility has failed to provide all or part of its LFAS when called upon to do so by System Management in accordance with clause 7B.3.6 or 7B.3.8; or  (b) the quantity of LFAS in a Trading Interval required by System Management is greater than the most recent LFAS Quantity published under clause (b) for that Trading Interval,  System Management may use the Verve Energy Balancing Portfolio or a Stand Alone Facility, to provide the LFAS Quantity Balance and/or the Increased LFAS Quantity, as applicable.	Rule amended to allow Verve standalone facilities to be able to provide any ancillary service any time System Management requires.
11 (Glossary)	Out of Merit	Out of Merit: Means dispatch of a Balancing Facility for a quantity different to that specified for the Facility in the BMO taking into account the Ramp Rate Limit and the Relevant Dispatch Quantity in the applicable Trading Interval for the Balancing Facility.	Definition of 'Out of Merit' amended for clarity to ensure upwards and downwards dispatch is catered for.

11 (Glossary)	Operational System Load Estimate and 7.13.4	Operational System Load Estimate: Has the meaning given in clause 6.14.4(a). Means, for a Trading Interval, System Management's estimate of the total Loss Factor adjusted MWh consumption supplied via the SWIS during that Trading Interval, which is to equal the total Loss Factor adjusted Scheduled Generator and Non-Scheduled Generator sent out energy as estimated by System Management from Scheduled Generator and Non-Scheduled Generator operational meter data and the use of state estimator systems.  7.13.4. System Management must provide the IMO with SCADA data by Facility and the Operational System Load Estimate in accordance with the IMS Interface Market Procedure.	Clause amended as per discussion at RDIWG meeting held on 6 December 2011 and in response to RDIWG Action (which can be found on page 2 of the minutes for RDIWG meeting 17).
Glossary	Dispatch Order	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 from the Dispatch Plan.	Clause amended to clarify V.B.P is dispatched on a Portfolio basis as per the Dispatch Plan and incrementally adjusted using Dispatch Orders to ensure Balancing Quantities (as determined from the BMO) and system security requirements are met.
11 (Glossary)	Various	Clarifications to LFAS enhancement and Quality definitions.	LFAS definitions amended to ensure consistent language used.
11 (Glossary)	Load Following Service	Load Following Service or LFAS: Has the meaning given in clause 3.9.1.	Definition amended to ensure consistent naming convention used for all ancillary services.
Appendix 1	1(i)xvi		Clause removed

Various	Clause 7.7.5B and Appendix 9	Due to size restraints of the cell, refer to Appendix 4 for drafting	The Amending Rules have been amended to incorporate the concepts detailed in RC_2010_25. To enable the concepts in RC_2010_25 to be incorporated into the new market structure a number of minor changes have been made to the Amending Rules detailed in the Draft Rule Change Report, these include:
			Clarifying in clause 7.7.5B that System Management's estimate will be of the maximum amount of sent out generation that each Non-Scheduled Generator would have supplied in the absence of a Dispatch Instruction, rather than the reduction in output of the generator as a result of the dispatch instruction. This ensures consistency with the new information requirements under clause 6.15.2(b)(i)
			2. Amending Appendix 9, step 3 to reflect that IPP's and Stand Alone Facilities will have Dispatch Instructions provided to them while the Verve Energy Balancing Portfolio will be instructed to deviate from its Dispatch Plan or change its commitment or output. This then allows later steps in the Appendix to be correctly treating Verve Energy's Stand Alone Facilities for the purpose of determining their Relevant Level.
			3. Amending Appendix 9, step 4 to no longer require the IMO to determine an estimate of the quantity of energy that would have been sent out as this will now be provided by System Management under clause 7.7.5B

APPENDIX 4.	<b>REVISED</b>	<b>AMENDING</b>	<b>RUIFS</b>
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The IMO Board has determined to implement the following Amending Rules (deleted text, added text).

# EXTRACT OF PROPOSED AMENDMENTS TO THE WHOLESALE ELECTRICITY MARKET RULES

# **23 February 2012**

<u>Proposed balancing and load following service changes in red underline and strikethrough</u>

#### Disclaimer

This unofficial extract of the Wholesale Electricity Market Rules reflects the rules as amended and published in the Government Gazette up to 1 December 2006 and amending changes made by the IMO up to 10 February 2012 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.

#### **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
- 1.10. Specific Transition Provisions Balancing and Load Following Services

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

#### **Ancillary Services**

3.9. Definitions of Ancillary Services

23 February 2012 4

- 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 Scheduling
- 3.19. Outage Approval
- 3.20. Outage Recall
- 3.21.\_\_\_Forced Outages

#### **Commissioning Tests**

- 3.21A. Commissioning Tests
- 3.21AA 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

4.1. The Reserve Capacity Cycle

#### The Reserve Capacity Expression of Interest

- 4.2. 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**

- 4.7.\_\_\_The Reserve Capacity Information Pack
- 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
- 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]
- 6.2. Bilateral Submission 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 and Stand Alone Facilities for certain Ancillary Services **Dispatch Instructions** 7.8. Dispatch Instructions and Operating 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
- BMO and Pricing BMO
- 7A.4. Verve Energy Stand Alone Facilities

#### **7B LFAS Market**

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

#### WHOLESALE MARKET METERING 8.

## **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

23 February 2012 8

#### 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
- 10.6 SWIS Restricted Information[Blank]
- 10.7 Rule Participant Market Restricted Information
- 10.8 Rule Participant Dispatch Restricted Information

#### 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 MCAPSTEM PRICE CURVE

**DETERMINATION** 

**APPENDIX 7: [BLANK] DISPATCH SCHEDULE CALCULATION** 

**APPENDIX 8: [BLANK]** 

**APPENDIX 9: RELEVANT LEVEL DETERMINATION** 

# 1.10. Specific Transition Provisions – Balancing and Load Following Services

#### 1.10.1. In this clause 1.10:

Balancing Final Rule Change Report: Means the IMO's Final Rule Change Report for the Rule Change Proposal: Competitive Balancing and Load Following Market (RC 2011 10).

<u>Pre-Amended Rules</u>: Means the Market Rules as in force immediately before the amendments made by the Balancing Final Rule Change Report come into effect (and if the amendments come into effect on more than one date, the last date on which the balance of the amendments come into effect).

Post-Amended Rules: Means the Market Rules as in force immediately after the amendments made by the Balancing Final Rule Change Report come into effect (and if the amendments come into effect on more than one date, the last date on which some of the amendments come into effect).

- 1.10.2. Before 8:00 AM on the Balancing Market Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, each Rule Participant must perform all obligations imposed on that Rule Participant under the Post-Amended Rules, in relation to the Balancing Market Commencement Day and subsequent Trading Days, that, if the Post-Amended Rules were in force, the Rule Participant would have been required to perform under the Post-Amended Rules. This includes but is not limited to obligations relating to:
  - (a) updated Standing Data under clause 2.34;
  - (b) information required to be shared between the IMO and System Management under Chapters 2 and 7, including:
    - Outage schedules under clause 7.3.4;
    - ii. Resource Plans under clause 7.4; and
    - iii. Fuel Declarations under clause 7.5.1;
  - (c) certification of Reserve Capacity under clauses 4.10 and 4.11;
  - (d) a submission, including:
    - i. a Bilateral Submission under clause 6.2;
    - ii. a STEM Submission under clause 6.3B;
    - iii. a Resource Plan Submission under clause 6.5;
    - iv. a Balancing Submission under clause 7A.2;
    - v. the Balancing Portfolio Supply Curve under clause 7A.2.9; and

- vi. a LFAS Submission under clause 7B.2;
- (e) the STEM Auction under clause 6.4;
- (f) a Non-Balancing Dispatch Merit Order under clause 6.12;
- (g) Load Forecasts under clause 7.2.1;
- (h) a Dispatch Instruction, Dispatch Order and an Operating Instruction under Chapter 7;
- (i) information in relation to the Verve Energy Balancing Portfolio under clause 7.6A.2;
- (j) a Dispatch Advisory under clause 7.11;
- (k) a Forecast BMO under clause 7A.3.16;
- (I) an LFAS Quantity forecast under clause 7B.1.4; and
- (m) an LFAS Merit Order, a Forecast LFAS Merit Order or the LFAS Price under clause 7B.3.
- 1.10.3. On the Scheduling Day relating to the Trading Day that is also the Balancing Market

  Commencement Day set by the IMO under clause 7A.1.2, notwithstanding that the

  Pre-Amended Rules continue to apply, Rule Participants are not required to perform obligations under the following Pre-Amended Rules:
  - (a) Resource Plan data under clauses 6.5, 6.5C, 6.11 and 7.4;
  - (b) Balancing Data under clauses 6.5A and 6.11A;
  - (c) the Dispatch Merit Order under clause 6.12;
  - (d) Load Forecast and Ancillary Service Requirements under clause 7.2;
  - (e) Outages under clause 7.3;
  - (f) Dispatch Merit Orders and Fuel Declarations under clause 7.5;
  - (g) Dispatch under clause 7.6;
  - (h) Scheduling and Dispatch of the Electricity Generation Corporation under clause 7.6A; and
  - (i) Dispatch Instructions under clauses 7.7 and 7.8,

but only to the extent that these obligations relate to the Trading Day that is also the Balancing Market Commencement Day or subsequent Trading Days.

- 1.10.4. After 8:00 AM on the Balancing Market Commencement Day, notwithstanding that the Post-Amended Rules apply, each Rule Participant must perform all obligations imposed on that Rule Participant under the Pre-Amended Rules, arising in relation to each Trading Day (or part of a Trading Day) up to but excluding the Balancing Market Commencement Day, that, if the Pre-Amended Rules were in force, the Rule Participant would have been required to perform under the Pre-Amended Rules. This includes, but is not limited to, obligations relating to:
  - (a) administration of the Market under Chapter 2;
  - (b) energy scheduling, including calculation of prices and quantities for Balancing and Ancillary Services under Chapter 6;
  - (c) Dispatch under Chapter 7;
  - (d) settlement under Chapter 9; and
  - (e) treatment of information under Chapter 10.

- 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 clause 2.1.2;
  - (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;
  - (m) to support the Economic Regulation Authority in its market surveillance role, including providing any market related information required by the Economic Regulation Authority;
  - 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.
- 2.2.2. The other functions of System Management in relation to the Wholesale Energy Market are:

- to procure adequate Ancillary Services where the Electricity Generation
   Corporation-Verve Energy cannot meet the Ancillary Service
   Requirements;
- (b) to assist the IMO in the processing of applications for participation and for the registration, de-registration and transfer of facilities;
- (c) to develop Market Procedures, and amendments and replacements for them, where required by these Market Rules;
- (d) to release information required to be released by these Market Rules;
- to monitor Rule Participants' compliance with Market Rules relating to dispatch and Power System Security and Power System Reliability; and
- (f) to carry out any other functions or responsibilities conferred, and perform any obligations imposed, on it under these Market Rules.
- 2.3.5. Subject to clause 2.3.13, the Market Advisory Committee must comprise:
  - (a) at least three and not more than four members representing Market Generators, of whom one must represent the Electricity Generation Corporation-Verve Energy;

...

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

  Corporation-Western Power;
- (d) at least three and not more than four members representing Market
   Customers, of whom one must represent the Electricity Retail Corporation
   Synergy;

. . .

- 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.
- 2.13.6B. System Management is not required to report an alleged breach by a Market Participant of clause 7.10.1 or clause 3.21 of the Market Rules to the IMO if:
  - (a) the extent of the alleged breach is either within the Tolerance Range established under clause 2.13.6D or the Facility Tolerance Range for that Facilityestablished under clause 2.13.6E; or
  - (b) the alleged breach is limited to occurring within a single Trading Interval; or
  - (c) in the case of an alleged breach of clause 7.10.1, the alleged breach is outside the Tolerance Range or Facility Tolerance Range, as applicable, where:
    - the Rule Participant has notified System Management of a Forced Outage in accordance with clause 3.21.4 that is applicable to the period of the alleged breach; and
    - ii. the alleged breach relates to the Rule Participant generating at a level below its Resource Plan or the Dispatch Instruction applicable to the relevant Forced Outage period.
- 2.13.6E.\_ System Management may determine a Facility Tolerance Range to apply to a specific generation Facility for the purposes of System Management's reporting of alleged breaches of clause 7.10.1 and clause 3.21 to the IMO under clause 2.13.6A. A Facility Tolerance Range will apply for a specific generation Facility in place of the Tolerance Range determined under clause 2.13.6D. When determining the Facility Tolerance Range to apply for the specific generation Facility, System Management must:
  - (a) consult with Market Participants prior to setting the Facility Tolerance Range; and
  - (b) submit to the IMO for publication on the Market Web Site at least 14
    Business Days prior to the date from which any changes to the Facility
    Tolerance Range become effective the following:
    - i. the reasons for System Management's decision;
    - ii. any submissions received from Market Participants;
    - iii. the applicable Facility Tolerance Range; and
    - iv. an effective date for the commencement of the applicable Facility Tolerance Range.

- 2.13.6F. System Management must not show bias towards a Market Participant in respect to athe Facility Tolerance Range.
- 2.13.6K. System Management must document the procedure for determining and reviewing the annual Tolerance Range and any Facility Tolerance Ranges to apply for the purposes of clause 7.10.1 and clause 3.21 of the Market Rules in the Power System Operation Procedure, and System Management and Market Participants must follow that documented Power System Operation Procedure.
- 2.13.9. System Management must monitor Rule Participants for breaches of the following clauses:
  - (a) [Blank]
  - (b) clauses 3.4.6 and 3.4.8;
  - (c) clauses 3.5.8 and 3.5.10;
  - (d) clauses 3.6.5 and 3.6.6B;
  - (e) clauses 3.16.4, 3.16.7, and 3.16.8A;
  - (f) clauses 3.17.5 and 3.17.6;
  - (g) clause 3.18.2(f);
  - (gA) clauses 3.21A.2, 3.21A.12, and 3.21A.13(a);
  - (gB) clauses 3.21B.1 and 3.21B.2;
  - (h) clause 4.10.2, where System Management is instructed by the IMO under clause 4.25.13;
  - (hA) clause 7.2.5;
  - (hB) clause 7.5.5;
  - (i) clause 7.7.6(b);
  - (j) clauses 7.10.1, 7.10.3, 7.10.6 and 7.10.6A; and
  - (k) clause 7.11.7.
- <u>2.13.13A. A Rule Participant must not engage in conduct under clause 2.13.13 that is false</u> 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.

- 2.16.2. 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.2.18(c);
  - (hC) any substantial variations in Balancing Prices, Non-Balancing Facility
    Dispatch Instruction Payments or Balancing Quantities relative to recent past behaviour;
  - the capacity available through Balancing from <u>Balancing Facilities</u>,
     <u>Generators and Non-Scheduled Generators and Dispatchable Loads and Demand Side Programmes</u>;
  - (j) 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;
- 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.
- 2.16.4. 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 the Balancing Market and the LFAS Market;
  - (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; <u>and</u>
  - (fA) <u>correlation between capacity offered into and made available in the LFAS</u>

    Market and the incidence of high prices;
  - (g) exploration of the key determinants for high prices in the STEM, and in Balancing, in the Balancing Market 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.
- 2.16.7. 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 Corporation Synergy.
- 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), 2.16.9(b)(ii) and 2.16.9(b)(iii) by examining prices in: STEM Submissions, including Standing STEM Submissions, used in forming STEM Bids and STEM Offers,
  - (a) Balancing Price-Quantity Pairs;
  - (b) LFAS Price-Quantity Pairs; and
  - (c) relevant submissions, including:
    - i. standing submissions; and
    - <u>ii.</u> STEM Submissions and Standing STEM Submissions used in forming STEM Bids and STEM Offers,

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 may not reflect the Market Generator's reasonable expectation of the short run marginal cost of generating the relevant electricity;
  - (aA) prices offered by a Market Generator in its Balancing Submission may exceed the Market Generator's reasonable expectation of the short run marginal cost of generating the relevant electricity; or
  - (b) prices offered by a Market Generator in its 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's 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-two Business Days from receiving the request.
- 2.16.9E. Where the Economic Regulation Authority receives an advice from the IMO under clause 2.16.9B(bd) 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 2.16.9FA, the Economic Regulation Authority must publish the results of its investigations within six months from receiving the IMO advice under clause 2.16.9B(bd) 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.
- 2.16.9FB. 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, subject to the investigation, did not reflect the Market Generator's reasonable expectation of the short run marginal cost of generating the relevant electricity;
  - (b) prices in a Balancing Submission, subject to the investigation, exceeded the Market Generator's reasonable expectation of the short run marginal cost of generating the relevant electricity; or
  - (c) prices in the LFAS Submission, subject to the investigation, 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 clauses 6.6.3, 7A.2.17 or 7B.2.15, as applicable.

- 2.16.10. The Economic Regulation Authority must also review:
  - the effectiveness of the Market Rule change process and Procedure
     Cehange Pprocess;
  - (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;
  - (b) 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. 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 Wholesale Mmarket Oebjectives;
- (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.
- 2.17.1. Decisions by the IMO <u>or System Management, as applicable,</u> made under the following clauses are Reviewable Decisions:

```
(a)
        clause 2.3.8;
(<u>baA</u>) clause 2.5.9;
(\underline{caB}) clause 2.6.4(f);
(daC) clause 2.7.8(e);
(e)
        clause 2.10.2A;
(<u>faD</u>) clause 2.10.13;
(gaE) clause 2.10.14;
(<u>h</u>b)
        clause 2.13.28;
(ic)
        clause 2.28.16;
(<u>j</u>d)
        clauses 2.30.4 and 2.30.8;
(<u>ke</u>)
        clause 2.31.10;
(<u>leA</u>) Clause clause 2.32.7E(b);
(<u>m</u>f)
        clause 2.34.7;
```

clause 2.34.7A(b)(ii);

(n)

```
clause 2.34.7C(c);
(0)
         clause 2.34.11;
(<u>pg</u>)
(<u>q</u>h)
         clauses 2.37.1 to 2.37.3;
<del>(i)</del>
         [Blank]
         clause 4.9.9;
(ri)
(<u>s</u>k)
         clause 4.15.1;
(tl)
         clause 4.27.7;
(<u>u</u>m)
         clause 4.28.7;
(v)
         clause 7A.1.11; and
         [Blank]
<del>(n)</del>
<del>(0)</del>
         [Blank]
         clause 10.2.1.
(<u>w</u>p)
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2.23.10. The budget proposal must be reflected in the Statement of Corporate Intent for the Electricity Networks Corporation Western Power and must be consistent with the segregation of System Management from other business units of the Electricity Networks Corporation Western Power.

## 2.34.1. The IMO must:

- (a) maintain a record of the Standing Data described in Appendix 1, including the date from which the data applies; and
- (b) provide the Standing Data, excluding any Standing Data described in the following clauses of Appendix 1, and any revisions of that Standing Data, to System Management as soon as practicable:

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i.
        clause (c); [Blank]
ii.
        clause (e) v; [Blank]
iii.
        clause (h)-(vi);
İ۷.
        clause (i)-(xA);
٧.
        clause (k)-(i)-(7);
vi.
        clause (k) ii.2; [Blank]
vii.
        clause (I)-(iii)-(4);
viii.
        clause (I)-(iii)-(5); and
        clause (m).
ix.
```

- 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 five 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 one Business Day of receiving a referral under clause 2.34.7A(a), request the IMO to extend the period under clause 2.34.7A(b) for a further period of five Business Days. The IMO must advise System Management within one Business Day of receiving a request under this clause 2.34.7B whether the IMO agrees to extend the period and, if the IMO so advises, the period specified under clause 2.34.7A(b) is extended to ten Business Days.
- 2.34.7C. System Management must within the period 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 change to LFAS Standing Data will meet the LFAS Facility
    Requirements, advise the IMO to accept the proposed change, including
    any enablement and quantity restrictions that are to apply to the Facility for
    LFAS Submissions; or
  - (c) if the proposed change to 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.

- 2.34.12. The IMO must consult with System Management before making a decision requiring a Rule Participant to provide updated Standing Data under clause 2.34.11, excluding any Standing Data described in the following clauses of Appendix 1:
  - (a) clause (c);[Blank]
  - (b) clause (e) v; [Blank]
  - (c) clause (h)-(vi);
  - (d) clause (i)-(xA);
  - (e) clause (k)-(i)-(7);
  - (f) clause (k) ii.2; [Blank]
  - (g). clause (l)-(iii)-(4);
  - (h) clause (l)-(iii)-(5); and
  - (i) clause (m).
- 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;
    - ii. Consumption Increase Prices and Consumption Decrease Prices 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.
- 2.36.1. Where the IMO uses software systems to determine Balancing Prices, to determine Non-Balancing Facility Dispatch Instruction Payments, to determine LFAS Prices, in the Reserve Capacity Auction, STEM Auction or settlement processes, it must:
  - (a) maintain a record of which version of software was used in producing each set of results, and maintain records of the details of the differences between each version and the reasons for the changes between versions;

- (b) maintain each version of the software in a state where results produced with that version can be reproduced for a period of at least 1 year from the release date of the last results produced with that version;
- (c) ensure that appropriate testing of new software versions is conducted;
- ensure that any versions of the software used by the IMO have been certified as being in compliance with the Market Rules by an independent auditor; and
- (e) require vendors of software audited in accordance with clause 2.36.1(d) to make available to Rule Participants explicit documentation of the functionality of the software adequate for the purpose of audit.
- 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 must develop an IMS Interface Market Procedure prescribing the reasonable arrangement by which System Management and the IMO must, subject to clause 2.36.10, provide each other with 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 must be provided.
- 2.36.10. Where the IMS Interface Market Procedure is 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 process applies until such time as the IMS Interface Market Procedure is 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 Market Procedure is identified and seek to agree an amendment to the IMS

- <u>Interface Market Procedure that addresses the inadequacy and which is</u> consistent with these Market Rules;
- (b) if agreement is reached under clause 2.36.10(a) within five Business Days of the first meeting, then the IMO and System Management must seek to develop a Procedure Change Proposal accordingly and, in the interim, act in accordance with that agreement;
- (c) if no agreement is reached under clause 2.36.10(a), 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 Market Procedure 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 five Business Days
  of the first meeting of the Authorised Officers, then the IMO and System
  Management must seek to develop a Procedure Change Proposal
  accordingly and, in the interim, act in accordance with that agreement; and
- (e) if no agreement is reached under clause 2.36.10(c) within five Business

  Days of the first meeting of the Authorised Officers, then the IMO, acting reasonably, must, as soon as practicable, develop and draft a Procedure Change Proposal seeking an amendment to the IMS Interface Market Procedure that addresses the inadequacy and which is consistent with these Market Rules.
- 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 electricity Relevant

    <u>Dispatch Quantity</u> and MCAP the Balancing 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.

- 3.2.5. The Technical Envelope represents the limits within which the SWIS can be operated in each SWIS Operating State. In establishing and modifying the Technical Envelope under clause 3.2.6, System Management must:
  - respect all Equipment Limits <u>but only to the extent those limits are not</u> inconsistent with the dispatch of Balancing Facilities that, but for the Equipment Limits, would be dispatched under clause 7.6.1C;
  - (b) respect all Security Limits;
  - (c) respect all SWIS Operating Standards;
  - (d) respect all Ancillary Service standards specified in clause 3.10; and
  - (e) take into account those parts of the SWIS which are not designed to be operated to the planning criteria in the relevant Technical Code.
- 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 IMO seeks to return to issuing Dispatch Instructions in the priority set out in clause 7.6.1C as soon as is reasonably practicable in the circumstances.
- 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 7.6.1C, to the extent that is reasonably practicable to do so in the circumstances.
- 3.9.1. Load Following 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 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:
  - it does not consider that it can meet the Ancillary Service Requirements with the Electricity Generation's Corporation Verve 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;
      - multiplied by LFR, the capacity necessary to meet the Ancillary Service Requirement for Load Following in that month;
    - ii. an amount LF Market Cost availability payment
       Availability\_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>Service</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 Service during 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
         Service 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 Service 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
         Service 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) from 8:00 AM on the Balancing Market Commencement Day to 8:00 AM on 1 July 2013:
  - the Margin Peak value is, subject to clause 3.13.3AB(b), the value determined by the Economic Regulation Authority and published on the Market Web Site; and
  - ii. the Margin\_Off-Peak value is, subject to clause 3.13.3AB(b), the value determined by the Economic Regulation Authority and published on the Market Web Site;
- (b) if the Economic Regulation Authority has not determined a Margin\_Peak or
  Margin\_Off-Peak value under clause 3.13.3AB(a) by 8:00 AM on the
  Balancing Market Commencement Day, then any such value is to be the
  value determined by the IMO and published on the Market Web Site as
  soon as reasonably practicable after the Balancing Market
  Commencement Day;
- (c) in determining values for Margin\_Peak and Margin\_Off-Peak under clause
  3.13.3AB(a) the Economic Regulation Authority must undertake a public
  consultation process, which must include publishing an issues paper and
  issuing an invitation for public submissions;
- (d) when determining a value for the parameter Margin\_Peak under this clause 3.13.3AB the Economic Regulation Authority or the IMO, as applicable, must take account of
  - i. the margin Verve Energy could reasonably have been expected to earn on energy sales foregone due to the supply of Spinning Reserve during Peak Trading Intervals; and
  - ii. the loss in efficiency of 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; and
- (e) when determining a value for the parameter Margin\_Off-Peak under this clause 3.13.3AB the Economic Regulation Authority or the IMO, as applicable, must take account of:
  - i. the margin Verve Energy could reasonably have been expected to earn on energy sales foregone due to the supply of Spinning Reserve during Off-Peak Trading Intervals; and

- ii. the loss in efficiency of 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.
- 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.
- 3.21.6. The following will apply for the purposes of clauses  $7.3.4_{\bigcirc}$  and 7.13.1A(b):

...

- 3.21A.13. If a Market Participant conducting a Commissioning Test cannot conform to the test plan 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** 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.
- 3.21A.14. Where a Facility is subject to a Commissioning Test the Dispatch Schedule for that Facility during the period of the Commissioning Test is to reflect the energy produced by the facility.
- 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\_PeakCapacity\_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 <a href="clause 3.22.3(b)(ii)">clause 3.22.3(b)(ii)</a> per Trading Interval.

- 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 <u>fracility</u>, 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;
      - 3. 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 and a configuration 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 clause 4.10.1(e)(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;
  - 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 clause sub clause 4.10.1(f)(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 the methodology 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) where an applicant nominates to use the methodology described in clause 4.11.2(b) and the Facility is already in full operation under the configuration for which certification is being sought (as outlined in clause 4.10.1(dA)), the date on which the Facility became fully operational under this configuration, unless this date has already been provided to the IMO in a previous application for certification of Reserve Capacity-; and
- (I) for a Balancing Facility, evidence of the extent to which the Facility will meet the applicable criteria of the Balancing Facility Requirements.
- 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 section clause 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:
    - the start of December for Reserve Capacity Cycles up to and including 2009; or
    - ii. the Ttrading Delay 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 <u>clause</u> 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 Cclause 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 Ceontract, 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:
  - 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 clause 4.11.1(h)paragraph;

- (i) the Certified Reserve Capacity 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 clause 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;
  - (aA) if it rejects a nomination under clause 4.11.2(a), the IMO must process the application as if the application had nominated to use the methodology described in clause 4.11.1(a) rather than the methodology described in clause 4.11.2(b); and
  - (b) <u>subject to clause 4.11.12,</u> if it has not rejected the nomination under clause 4.11.2(a), must assign a quantity of Certified Reserve Capacity to the relevant Facility for the Reserve Capacity Cycle equal to the Relevant Level as determined in accordance with the Relevant Level Methodology, 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 4.10.3A(c) to have the IMO use an alternative value to that specified in clause 4.10.3A(b) the IMO:
  - (a) may reject the proposed alternative value if it does not consider the reasons provided in accordance with clause 4.10.3A(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).
- 4.11.3B. 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 <u>5five</u> percent probability of exceedance of expected generation output for the Facility, submitted to the IMO in the report described in clause 4.10.3A(b);or
- ii. the proposed alternative value, expressed in MW as a sent out value, provided in the report described in clause 4.10.3A(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.
- 4.11.7. 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-Secheduled Generators.
- 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.
- 4.12.1. The Reserve Capacity Obligations of a Market Participant holding Capacity Credits, are as follows:
  - (a) a Market Participant (other than the Electricity Generation Corporation

    Verve Energy) must ensure that for each Trading Interval:
    - the aggregate MW equivalent of the quantity of Capacity Credits held by the Market Participant applicable in that Trading Interval for Interruptible Loads and Demand Side Programmes registered to the Market Participant; plus
    - ii. the MW quantity calculated by doubling the net MWh quantity of energy to be sent out during the Trading Interval by Facilities registered by that Market Participant; 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 in the applicable Resource Plan; plus
    - iii. the MW quantity calculated by doubling the total MWh quantity covered by 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 that Trading Interval, corrected for loss factor adjustments so as to be a sent out quantity; plus
    - iv. capacity expected to experience a Fforced Ooutage at the time that STEM submissions were due which becomes available in real time,

is not less than the total Reserve Capacity Obligation Quantity for that Trading Interval for Facilities registered to the Market Participants, less double the total MWh quantity to be provided as Ancillary Services as specified by the IMO for that Market Participant in accordance with clause 6.3A.2(e)(i).

(b) the Electricity Generation Corporation Verve Energy must ensure that for each Trading Interval:

- i. [Blank]
- ii. the MW quantity calculated by doubling the total MWh quantity which the Electricity Generation Corporation Verve Energy is selling to other Market Participants as indicated by the applicable Net Contract Position of the Electricity Generation Corporation Verve Energy, corrected for loss factor adjustments so as to be a sent out quantity; plus
- iii. the MW quantity calculated by doubling the total MWh quantity covered by STEM Offers which were not scheduled and the STEM Bids which were scheduled in the relevant STEM Auction determined by the IMO for the Electricity Generation Corporation Verve Energy under clause 6.9 for that Trading Interval, corrected for loss factor adjustments so as to be a sent out quantity; plus
- iv. capacity expected to experience a forced outage Forced Outage at the time that STEM submissions were due which becomes available in real time,

is not less than the total Reserve Capacity Obligation Quantity for the Electricity Generation Corporation Verve Energy for that Trading Interval, less double the total MWh quantity to be provided as Ancillary Services as specified by the IMO for the Electricity Generation Corporation Verve Energy in accordance with clause 6.3A.2(e)(i).

- (c) the Market Participant must make the capacity associated with the Capacity Credits provided by a Facility applicable to a Trading Interval, up to the Reserve Capacity Obligation Quantity for the Facility for that Trading Interval, available for dispatch by System Management in accordance with Chapter 7.
- 4.12.4. Subject to clause 4.12.5, where the IMO establishes the initial Reserve Capacity Obligation Quantity to apply for a Facility for a Trading Interval:
  - (a) the Reserve Capacity Obligation Quantity must not exceed the Certified Reserve Capacity held by the Market Participant for the Facility;
  - (aA) for generation systems that are Intermittent Generators, the Reserve Capacity Obligation Quantity is zero;
  - (b) for generation systems other than Intermittent Generators, except where otherwise precluded by this clause 4.12.4, the Reserve Capacity Obligation Quantity:
    - must not be less than the amount specified in clause 4.10.1(e)(ii)
      except on Trading Days when the maximum daily temperature at
      the site of the generator exceeds 41°C, in which case the Reserve
      Capacity Obligation Quantity must not be less than the amount

- specified in clause 4.10.1(e)(ii) adjusted to an ambient temperature of 45°C;
- ii. may exceed the amount in clause 4.12.4(b)(i) by an amount up to the amount specified in clause 4.10.1(e)(iii), adjusted to an ambient temperature of 45°C on Trading Days when the maximum daily temperature at the site of the generator exceeds 41°C, for not more than the maximum duration specified in accordance with clause 4.10.1(e)(iii); and
- iii. must account for staffing and other restrictions on the ability of the Facility to provide energy upon request; and
- (c) for Interruptible Loads, Demand Side Programmes and Dispatchable Loads, except where otherwise precluded by this clause 4.12.4, the Reserve Capacity Obligation Quantity:
  - i. will equal zero once the capacity has been dispatched under clause 7.6.6(e) 7.6.1C(d) for the number of hours per year that are specified under clause 4.10.1(f)(ii);
  - ii. will equal zero for the remainder of a Trading Day in which the capacity has been dispatched under clause 7.6.6(e) 7.6.1C(d) for the number of hours per day that are specified under clause 4.10.1(f)(iii);
  - iii. will equal zero once the capacity has been dispatched under clause 7.6.6(e) 7.6.1C(d) for the maximum number of times per year specified under clause 4.10.1(f)(iv);
  - iv. must account for staffing and other restrictions on the ability of the Facility to curtail energy upon request; and
  - v. will equal zero for Trading Intervals which fall outside of the periods specified in clause 4.10.1(f)(vi).
- 4.12.8. Where a Demand Side Programme is dispatched under clause 7.6.6(e) 7.6.1C(d) to a level equal to its Reserve Capacity Obligation Quantity on two consecutive days the Reserve Capacity Obligation Quantity for the third consecutive day will be zero.
- 4.14.4. The value specified by the Electricity Generation Corporation Verve Energy in accordance with clause 4.14.1(c) must be not less than:
  - (a) the lesser of:
    - the total Certified Reserve Capacity held by the Electricity
       Generation Corporation Verve Energy; and
    - ii. the Electricity Generation Corporation Verve Energy's peak load, as determined in accordance with clause 4.14.5 multiplied by an amount equal to:

- 1. the Reserve Capacity Requirement; divided by
- 2. the expected peak demand corresponding to the Reserve Capacity Requirement, as determined in accordance with clause 4.6.2; less
- (b) the Minimum Frequency Keeping Capacity.
- 4.14.5. For the purpose of clause 4.14.4, the Electricity Generation Corporation Verve
  Energy's peak load is calculated by doubling the average of the Electricity
  Generation Corporation Verve Energy's supply quantities (expressed in MWh)
  specified in the Bilateral Submissions that applied during the 12 peak Trading
  Intervals, as specified in Appendix 5, of the previous Hot Season. Prior to the
  completion of the first Hot Season following Energy Market Commencement:
  - (a) this value will be determined by the IMO and provided to the Electricity

    Generation Corporation Verve Energy not less than 20 Business Days prior to the date specified in clause 4.1.14.
  - (b) [Blank]
- 4.23A.1. For the first Reserve Capacity Cycle, as facilities are registered, the IMO must convert the Certified Reserve Capacity, Capacity Credits and Reserve Capacity Obligation Quantities that were associated with Western Power Corporation's generation systems in accordance with clauses 4.11, 4.12, and 4.20 into Certified Reserve Capacity, Capacity Credits and Reserve Capacity Obligation Quantities associated with individual Registered Facilities.
- 4.23A.2. In performing the allocations described in clause 4.23A.1, the IMO must:
  - (a) ensure that the total Certified Reserve Capacity, Capacity Credits and Reserve Capacity Obligation Quantities of the Registered Facilities equal, respectively, the Certified Reserve Capacity, Capacity Credits and Reserve Capacity Obligation Quantities that were associated with Western Power Corporation's generation systems in accordance with clauses 4.11, 4.12, and 4.20;
  - (b) where facilities will not be registered as being Electricity Generation Corporation facilities as at Energy Market Commencement, allocate Certified Reserve Capacity, Capacity Credits and Reserve Capacity Obligation Quantities to the Market Participant to whom those facilities are to be registered; and
  - (c) consult with Western Power <u>Corporation</u> or the Electricity Generation Corporation (as applicable) and give consideration to Western Power <u>Corporation</u> or the Electricity Generation Corporation (as applicable) preferences as to how clause 4.23A.1 should be implemented.

- 4.25.3. The IMO must not subject a Facility to more tests of Reserve Capacity Reserve

  Capacity Tests than it considers are required to satisfy the verification requirements of this clause 4.25.
- 4.25.3A. The IMO must not subject a Facility to a test of Reserve Capacity Reserve Capacity Test if:
  - (a) that Facility is undergoing a Scheduled Outage or Opportunistic Outage which has been approved in accordance with clause 3.19, or
  - (b) the relevant Market Participant has advised System Management of a Forced Outage or Consequential Outage for that Facility in accordance with clause 3.21.4; or
  - (c) that Facility is undergoing a Commissioning Test approved in accordance with clause 3.21A.
- 4.25.3B. If a Demand Side Programme fails a Reserve Capacity test Test under clause 4.25.2(b)(ii) and is issued a Dispatch Instruction by System Management to decrease its consumption to a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, for not less than one Trading Interval prior to a second Reserve Capacity test Test being undertaken in accordance with clause 4.25.4, then the activation shall be deemed to be the second Reserve Capacity test Test.
- 4.25.4. Subject to clause 4.25.3B, if a Facility fails a Reserve Capacity test Test requested by the IMO under clause 4.25.2, the IMO must require System Management to retest that Facility in accordance with clause 4.25.2, not earlier than 14 days and not later than 28 days after the first test Reserve Capacity Test. If the Facility fails this second test Reserve Capacity Test, then the IMO must, from the second Trading Day following the Scheduling Day on which the IMO determines that the second test Reserve Capacity Test was failed:
  - (a) if the test Reserve Capacity Test related to a generation system, reduce the number of Capacity Credits held by the relevant Market Participant for that Facility to reflect the maximum capabilities achieved in either test Reserve Capacity Test performed (after adjusting these results to the equivalent values at a temperature of 41°C and allowing for the capability provided by operation on different types of fuels); or
  - (b) if the test Reserve Capacity Test related to a Dispatchable Load, Demand Side Programme or Interruptible Load, reduce the number of Capacity Credits held by the relevant Market Participant for that Facility to the maximum level of reduction achieved in either of the two tests Reserve Capacity Tests.
- 4.25.5. In the event that the number of Capacity Credits held by a Market Participant are reduced in accordance with clause 4.25.4, then that Market Participant may

- request once during the remaining Reserve Capacity Cycle that the IMO require System Management to perform a single re-test to be conducted during the seven days following that request.
- 4.25.6. If the IMO receives a request for a Reserve Capacity re-test in accordance with clause 4.25.5, then the IMO must require System Management to conduct such a re-test, and must set the number of Capacity Credits held by the relevant Market Participant for that Facility to reflect the maximum capabilities achieved in the retest (after adjusting these results to the equivalent values at a temperature of 41°C and allowing for the capability provided by operation on different types of fuel), but not to exceed the number of Capacity Credits originally confirmed by the IMO for that Facility under clause 4.20 in respect of the relevant Reserve Capacity Cycle.
- 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 Reserve Capacity <u>\*I</u>est, where applicable; and
  - (c) the time interval during which the Reserve Capacity 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 <u>t</u>Test 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 <u>t</u>Test 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 <u>Reserve Capacity</u> <u>†</u>Test cannot be conducted;and
  - (b) an alternative time interval during which the Reserve Capacity Test will be conducted, where this must be the earliest time that the Reserve Capacity Test can be performed without endangering Power System Security and Power System Reliability.
- 4.25.9. In conducting a Reserve Capacity tTest, System Management must:
  - (a) subject to <u>clauses 4.25.9paragraphs</u> (b), <u>4.25.9</u>(c) and <u>4.25.9</u>(d), endeavour to conduct the <u>Reserve Capacity</u> <u>\$\text{T}\$</u> est 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>‡Test</u> was successfully performed;
- (f) maintain adequate records of the Reserve Capacity test to allow independent verification of the test results; and
- (g) conduct the Reserve Capacity tTest 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 tTest 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 tTests 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.
- 4.25.14. The IMO must document the procedure to be followed in performing Reserve Capacity <u>t</u>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 <u>t</u>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:

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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(p,d,t)
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Where:

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\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:
  - 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 Auction has been suspended by the IMO in accordance with clause 6.10:
- (d) subject to <u>clause 4.26.2</u><del>paragraph</del> (c), for the case where Market Participant p is not the <u>Electricity Generation Corporation Verve Energy</u>, 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 <a href="mailto:clause-4.26.2">clause 4.26.2</a> paragraph (c), for the case where Market Participant p is <a href="mailto:the-Electricity Generation CorporationVerve Energy">the Electricity Generation CorporationVerve Energy</a>, 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 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

<u>Energy</u> 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; and

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.

F denotes the set of Scheduled Generators registered by Market Participant p, where "f" is used to refer to a member of that set.

- 4.26.2D. The IMO must determine the capacity shortfall in Reserve Capacity ("Capacity Shortfall") supplied by each Market Participant p holding Capacity Credits associated with a Demand Side Programme in each Trading Interval t of Trading Day d and Trading Month m relative to its Reserve Capacity Obligation Quantity as:
  - (a) where System Management has issued a Dispatch Instruction under clause 7.6.1C(d) 7.6.6(e) to the Demand Side Programme for the Trading Interval as advised to the IMO by System Management under clause 7.13.1:

max(0, min(RCOQ, DIMW) – max (0, RD – DSPLMW)) where

RCOQ is the Reserve Capacity Obligation Quantity of the Demand Side Programme for Trading Interval t (in MW), determined in accordance with clause 4.12.4;

DIMW is the quantity by which the Demand Side Programme was instructed by System Management to reduce its consumption in Trading Interval t as specified by System Management in accordance with clause 7.13.1(eCG), multiplied by two to convert to units of MW;

RD is the Relevant Demand of the Demand Side Programme for Trading Day d, determined by the IMO in accordance with clause 4.26.2CA; and

DSPLMW is the Demand Side Programme Load of the Demand Side Programme in Trading Interval t, multiplied by two to convert to units of MW; and

(b) zero, where System Management has not issued a Dispatch Instruction under clause 7.6.1C(d) 7.6.6(e) to the Demand Side Programme for Trading Interval t as advised to the IMO by System Management under clause 7.13.1.

- 5.7.4. System Management must issue an Operating Instruction in order to document the procedure it will follow in calling call 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).

- 6.2.4C. [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.
- 6.3A.1. The IMO must publish the following information:
  - (a) by 8:00 AM of each Scheduling Day to support the Bilateral Submission process the Load Forecast in MWh and MW as measured at the Reference Node for each of the Trading Intervals of the Trading Day determined in accordance with clauses 7.2.1(a) as provided to the IMO by System Management in accordance with clauses 7.2.3B-or 7.2.3C;

...

- 6.3A.2. By 9:00 AM on the Scheduling Day the IMO must have calculated and released to each Market Participant the following parameters to be applied by that Market Participant in forming its STEM Submissions for each Trading Interval in the Trading Day:
  - (a) the Maximum Supply Capability where this equals the maximum Loss
    Factor adjusted quantity of energy, in units of MWh, that could be supplied
    during the Trading Interval based on the Standing Data of that Market
    Participant's Scheduled Generators and Non-Scheduled Generators and
    assuming the use of the fuel which maximises the capacity of each Facility:
    - i. less an allowance for eQutages of which the IMO has been made aware by System Management in accordance with clauses 7.3.4 or 7.3.6; and
    - ii. less, for each Market Participant that is a provider of Ancillary Services, the estimated Loss Factor adjusted quantity- of energy-, in units of MWh, that could potentially be called upon by System Management from that Market Participant after 1:00 PM on the Scheduling Day to meet Ancillary Service requirements for each Trading Interval of the Trading Day, as provided to the IMO by System Management in accordance with clauses 7.2.3B or 7.2.3C;

. . .

- (e) in the case of each Market Participant that is a provider of Ancillary Services:
  - the estimated Loss Factor adjusted quantity of energy, in units of MWh, that could potentially be called upon by System Management after 1:00 PM on the Scheduling Day to meet Ancillary Service requirements for each Trading Interval of the Trading Day; and

ii. the list of Facilities that System Management might reasonably expect to call upon to provide the energy described in <a href="clause-6.3A.2(e)">clause</a> 6.3A.2(e)(i),

as provided to the IMO by the System Management in accordance with clauses 7.2.3B or 7.2.3C.

- 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 sectionclause 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.

- 6.5.1. Market Participants, including other than the Electricity Generation

  Corporation Verve Energy but only in respect of its Stand Alone Facilities, 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, including Verve Energy but only in respect of its Stand Alone 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.
- 6.5.1C. 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.
- 6.5.4. 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) <u>in respect of a Market Participant other than Verve Energy:</u>
    - all the Market Participant's Scheduled Generators and Non-Scheduled Generators having a scheduled output of zero;
    - <u>ii.</u> all Dispatchable Loads having a scheduled consumption of zero; and
    - <u>iii.</u> the level of the supply shortfall required pursuant to clause 6.11.1(e) equal to the total Net Contract Position; or
  - (b) <u>in respect of all of Verve Energy's Stand Alone Facilities, having a scheduled output of zero</u>.
  - (c) the level of the supply shortfall required pursuant to clause 6.11.1(e) equal to the total Net Contract Position.

# 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:
    - i. 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.1. 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.1A. 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 PM;

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.1A, 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.7. [Blank] 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.
- 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

- 6.11.1. 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 MWh, for each Trading Interval in the Trading Daythe identity of the Market Participant making the submission;
  - (aA) [Blank]in the case of:
    - i 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 offor</u> each Scheduled Generator and Dispatchable Load registered by the Market Participant:
    - i. the name of the Facility;
    - 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, in <u>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;
      - 31. 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. the Ramp Rate Limit, for each Trading Interval the target megawatt output of each Facility at the end of each Trading Interval included in the submission; and
- v. the target MW level, which must be consistent 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;
    - 2. must be expressed to a precision of 0.001 MWh; and
    - 3. 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, in MWh, 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 <u>generator Generator</u> for any Trading Interval if that <u>generator Generator</u> is under-going a Commissioning Test during that Trading Interval; <u>and</u>
- (c) [Blank]it must not include Interruptible Loads; and
- (d) it must meet the requirements of clause 6.11.3 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.

# 6.11.3. A Market Participant, other than Verve Energy, must ensure that either:

(a)  $Target_{LFA} = (NCP + DQ - NonSchGen - Shortfall) \pm Tol$ 

Where:

<u>Target<sub>LFA</sub></u> = the sum of the Loss Factor adjusted energy quantities, in MWh, submitted by the Market Participant under clause 6.11.1(b)(iii)

NCP = the Net Contract Position

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

NonSchGen = the amount, in MWh, provided by the Market Participant under clause 6.11.1(a)

<u>Shortfall = the amount, in MWh, provided by the Market Participant under</u> clause 6.11.1(e)

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

<u>or</u>

(b) Target  $MW_{LFA} = (NCP - NonSchGen - Shortfall) * 2+DQ ± Tol$ 

Where:

Target  $MW_{LFA}$  = the sum of the Loss Factor adjusted MW quantities provided by the Market Participant under clause 6.11.1(b)(v)

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 provided by the Market Participant under clause 6.11.1(a)

<u>Shortfall</u> = the amount provided by the Market Participant under clause 6.11.1(e)

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

# 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:
      - a Non Liquid Supply Increase Price for Peak Trading Intervals;
      - 2. 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:
  - 1. 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:

- i. 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):
  - 3. 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 clauses 6.12.1(b) to 6.12.1(eg). 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 7.6.1C(d) to increase or decrease consumption 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:
  - this <u>Non-Balancing</u> Dispatch Merit Order must list all <u>Scheduled</u> <u>Generators</u>, Demand Side Programmes and Dispatchable Loads registered by Market Participants other than the <u>Electricity</u> <u>Generation Corporation Verve Energy</u>; 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 clause 6.12.1(b)(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</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>;
  - 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\_clause 6.12.1(c)(i) in increasing decreasing order of the:

- Non-Liquid Supply Decrease Price for Peak Trading Intervals;
- 2. Liquid Supply Decrease Price for Peak Trading Intervals; or
- 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 CorporationVerve 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 clause 6.12.1(d)(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 clause 6.12.1(e)(i) in increasing ecreasing order of the:
    - 1. Non-Liquid Supply Decrease Price for Off-Peak Trading Intervals;
    - 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 purposes 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.

# 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.
- 6.14.2. 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:
  - 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. 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:
  - 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; plus
  - ii. if the Facility's SOI Quantity is greater than the sum of the quantities in the Facility's Balancing Price-Quantity Pairs which have a Loss Factor Adjusted Price less than or equal to the Balancing Price, the minimum amount of sent out energy, in MWh, if any, which could have been dispatched in the Trading Interval from any of the Facility's Balancing Price-Quantity Pairs which have a Loss Factor Adjusted Price greater than the Balancing Price,

taking into account the Balancing Facility's SOI Quantity and Ramp Rate Limit;

- (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 less than or equal to the
     Balancing Price, then the Sent Out Metered Schedule as determined
     in accordance with clause 6.15.3(a)(i); 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:
  - i. 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; plus
  - ii. if the Verve Energy Balancing Portfolio's SOI Quantity is greater than the sum of the quantities in the Balancing Price-Quantity Pairs within the Balancing Portfolio Supply Curve which have an associated price that is less than or equal to the Balancing Price, the minimum amount of sent out energy, in MWh, if any, which could have been dispatched in the Trading Interval from any of the Balancing Price-Quantity Pairs within the Balancing Portfolio Supply Curve which have an associated price greater than 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 sum of:
      - 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; plus
      - 2. if the Facility's SOI Quantity is greater than the sum of the quantities in the Facility's Balancing Price-Quantity Pairs which have a Loss Factor Adjusted Price less than or equal to the Balancing Price, the minimum amount of sent out energy, in MWh, if any, which could have been dispatched in the Trading Interval from any of the Facility's Balancing Price-Quantity Pairs which have a Loss Factor Adjusted Price greater 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 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 less 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 as determined in accordance with clause 6.15.3(a)(i); or
  - (c) for the Verve Energy Balancing Portfolio, the amount which is the lesser of:
    - i. the sum of:

- 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; plus
- greater than the sum of the quantities in the Balancing Price-Quantity Pairs within the Balancing Portfolio Supply Curve which have an associated price that is less than or equal to the Balancing Price, the minimum amount of sent out energy, in MWh, if any, which could have been dispatched in the Trading Interval from any of the Balancing Price-Quantity Pairs within the Balancing Portfolio Supply Curve which have an associated price greater than or equal to the Balancing Price,

taking into account the Portfolio Ramp Rate Limit and SOI Quantity; and

ii. where a Facility in the Verve Energy Balancing Portfolio is subject to an Outage, the maximum amount of sent out energy, in MWh, which could have been dispatched given the sum of the Available Capacity of Facilities in the Verve Energy Balancing Portfolio for that Trading Interval.

#### 6.15.3 The IMO must:

- (a) calculate Maximum Theoretical Energy Schedules under clause 6.15.1 and Minimum Theoretical Energy Schedules under clause 6.15.2:
  - using Sent Out Metered Schedules determined using SCADA data and output estimates received from System Management in accordance with clause 7.13.1(cA), notwithstanding any requirement in clause 9.3.4 to use Meter Data Submissions received by the IMO; and
  - ii. as soon as practicable after receiving applicable SCADA data under clause 7.13.1(cA); and
- (b) update Maximum Theoretical Energy Schedules and Minimum Theoretical Energy Schedules calculated under clause 6.15.3(a) as soon as practicable after receiving a relevant schedule of Outages under clause 7.13.1A(b).

- 6.15.4 The Maximum Theoretical Energy Schedules and Minimum Theoretical Energy
  Schedules calculated by the IMO in accordance with clause 6.15.3 cannot be
  altered by:
  - (a) disagreement under clause 9.20.6; or
  - (b) disputes under clause 9.21.1.
- 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 equals:
  - (a) subject to clause 6.16A.1(b), the Sent Out Metered Schedule less the Maximum Theoretical Energy Schedule; or
  - (b) zero where:
    - 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;
    - 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:
      - any Upwards LFAS Enablement and, if the Facility is a Stand
         Alone Facility, any Upwards Backup LFAS Enablement, which
         the Facility was instructed by System Management to provide,
         divided by two so that it is expressed in MWh; and
      - 2. the applicable Settlement Tolerance.
- 6.16A.2. The Downwards Out of Merit Generation in a Trading Interval for a Balancing Facility equals:

(a) subject to clause 6.16A.2(b), the Minimum Theoretical 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;
- 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:
  - any Downwards LFAS Enablement and, if the Facility is a
     Stand Alone Facility, any Downwards Backup LFAS
     Enablement, which the Facility was instructed by System
     Management to provide, 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 increase in sent out energy due to a Network Control
     Service Contract which System Management instructed a

- <u>Facility within the Verve Energy Balancing Portfolio to provide;</u>
- 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;
- if a Spinning Reserve Event has occurred, any Spinning Reserve Response Quantity; 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:
    - 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

      Schedules for Facilities in the Verve Energy Balancing Portfolio is less than the sum of:
      - any reduction in sent out energy due to a Network Control Service Contract which System Management instructed a Facility within the Verve Energy Balancing Portfolio to provide;
      - 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;
      - 3. if a Load Rejection Reserve Event has occurred, any Load Rejection Reserve Response Quantity; 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 Constrained Off Verve Energy Balancing Portfolio 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, ADQ MBQ(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<sub>7.2</sub>
  - (c) 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 and Prices**

- 6.17.3. Subject to clauses 6.17.5B and 6.17.5C, the IMO must attribute any Upwards Out of Merit Generation from a Balancing Facility that is a Scheduled Generator in a Trading Interval, as follows:
  - (a) Constrained On Quantity1 (ConQ1) equals the lesser of:
    - i. the maximum energy less the minimum energy, if any, in MWh,
      which could have been dispatched from the Facility's Balancing
      Price-Quantity Pair N, with a Loss Factor Adjusted Price (Price N)
      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 and a Balancing Price-Quantity Pair exists for the Facility and

    Trading Interval with a Loss Factor Adjusted Price higher than Price N, then:
    - i. additional Constrained On Quantity2 (ConQ2) equals the lesser of:
      - 1. the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched from the Facility's Balancing Price-Quantity Pair N+1 with a Loss Factor Adjusted Price (Price N+1) higher than but closest to the Price N, taking into account when the Balancing Facility's MW level reached the top, or bottom, as applicable, of the quantity associated with the Balancing Price-Quantity Pair N

- in the calculation in clause 6.17.3(a)(i) and the applicable Ramp Rate Limit; and
- the Upwards Out of Merit Generation for the Balancing Facility less ConQ1; and
- ii. Constrained On Compensation Price2 (ConP2) equals the Loss

  Factor Adjusted Price N+1 identified in clause 6.17.3(c)(i) less the

  Balancing Price;
- (d) The IMO must repeat the process set out in clause 6.17.3(c) to identify, from the next highest priced Price N+1, any ConQN+1 and ConPN+1 until all Upwards Out of Merit Generation has been attributed to Balancing Price-Quantity Pairs or, otherwise, until there are no remaining Balancing Price-Quantity Pairs;
- (e) The Non-Qualifying Constrained On Generation for the Balancing Facility equals the sum, divided by two so that it is expressed as sent out MWh, of any Upwards LFAS Enablement and, if the Facility is a Stand Alone Facility, any Upwards LFAS Backup Enablement, which the Balancing Facility was instructed to provide by System Management;
- <u>(f)</u> <u>lf:</u>
  - i. the Non-Qualifying Constrained On Generation exceeds ConQ1, 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 clause 6.17.3(f) for each
  ConQN in ascending order until all Non-Qualifying Constrained On
  Generation has been deducted from ConQN or, otherwise, until there are
  no remaining ConQN; and
- (h) For settlement purposes under Chapter 9, the IMO must Loss Factor adjust each ConQN calculated in clauses 6.17.3(a) to 6.17.3(f).
- 6.17.3A Subject to clause 6.17.5B, for any Balancing Facility that is a Non-Scheduled Generator, in a Trading Interval:
  - (a) ConQ1 equals the Upwards Out of Merit Generation, in MWh, for the
    Trading Interval, which for settlement purposes under Chapter 9 the IMO
    must Loss Factor adjust; and

(b) ConP1 equals the Balancing Price for that Trading Interval less the Loss Factor Adjusted Price in the Balancing Price-Quantity Pair associated with the Balancing Facility for that Trading Interval.

#### **Constrained Off Facility Balancing Quantities and Prices**

- 6.17.4. Subject to clauses 6.17.5B and 6.17.5C, the IMO must attribute any Downwards

  Out of Merit Generation from a Balancing Facility that is a Scheduled Generator, in a Trading Interval, as follows:
  - (a) Constrained Off Quantity1 (CoffQ1) equals the lesser of:
    - i. the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched down from the Facility's Balancing Price-Quantity Pair N, with a Loss Factor Adjusted Price (Price N), taking into account the Available Capacity and actual SOI Quantity of the Balancing Facility and the applicable Ramp Rate Limit, where N is determined from either of the following Balancing Price-Quantity Pairs or, if different, the one with the lower price:
      - the Balancing Price-Quantity Pair associated with the intersection of Available Capacity and the quantities in all Balancing Price-Quantity Pairs summed in order of lowest to highest price; and
      - the Balancing Price-Quantity Pair with a Loss Factor
         Adjusted Price lower than but closest to the Balancing Price;
         and
    - 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 and a Balancing Price-Quantity Pair exists for the Facility and

    Trading Interval with a Loss Factor Adjusted Price lower than Price N, then:
    - i. additional Constrained Off Quantity2 (CoffQ2) equals the lesser of:
      - the maximum energy less the minimum energy, if any, in
         MWh, which could have been dispatched down from the
         Facility's Balancing Price-Quantity Pair N+1 with a Loss
         Factor Adjusted Price (Price N+1) lower than but closest to
         the Price N, taking into account when the Balancing
         Facility's MW level reached the bottom, or the top, as
         applicable, of the quantity associated with the Balancing

- Price-Quantity Pair N in the calculation in clause 6.17.4(a)(i) and the applicable Ramp Rate Limit; and
- the Downwards Out of Merit Generation for the Balancing Facility less CoffQ1; and
- ii. Constrained Off Compensation Price2 (CoffP2) equals the

  Balancing Price less the Loss Factor Adjusted Price N+1 identified
  in clause 6.17.4(c)(i);
- (d) The IMO must repeat the process set out in clause 6.17.4(c) to identify, from the next lowest priced Price N+1, any CoffQN+1 and CoffPN+1 until all Downwards Out of Merit Generation has been attributed to Balancing Price-Quantity Pairs or, otherwise, until there are no remaining Balancing Price-Quantity Pairs;
- (e) The Non-Qualifying Constrained Off Generation for the Balancing Facility equals the sum, divided by two so that it is expressed as sent out MWh, of any Downwards LFAS Enablement and, if the Facility is a Stand Alone Facility, any Downwards Backup LFAS Enablement, which the Balancing Facility was instructed to provide by System Management;

#### (f) If:

- i. the Non-Qualifying Constrained Off Generation exceeds CoffQ1, 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 clause 6.17.4(f) for each

  CoffQN in ascending order until all Non-Qualifying Constrained Off

  Generation has been deducted from CoffQN or, otherwise, until there are
  no remaining CoffQN; and
- (h) For settlement purposes under Chapter 9, the IMO must Loss Factor adjust each CoffQN calculated in clauses 6.17.4(a) to clauses 6.17.4(f).
- 6.17.4A. Subject to clause 6.17.5B, for any Balancing Facility that is a Non-Scheduled Generator, in a Trading Interval:
  - (a) CoffQ1 equals the Downwards Out of Merit Generation, in MWh, for that Trading Interval, which for settlement purposes under Chapter 9 the IMO must Loss Factor adjust; and

(b) CoffP1 equals the Loss Factor Adjusted Price in the Balancing Price— Quantity Pair associated with the Balancing Facility less the Balancing Price for that Trading Interval.

## Constrained On Verve Energy Balancing Portfolio Quantities and Prices

- 6.17.5. Subject to clause 6.17.5C, the IMO must attribute any Upwards Out of Merit

  Generation from the Verve Energy Balancing Portfolio in a Trading Interval as follows:
  - (a) Portfolio Constrained On Quantity1 (PConQ1) equals the lesser of:
    - i. the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched from the Balancing Price-Quantity Pair N in the Balancing Portfolio Supply Curve with a price (Price N) 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 N identified in clause 6.17.5(a) less the Balancing Price;
  - (c) If the Portfolio Upwards Out of Merit Generation exceeds PConQ1 and a
    Balancing Price-Quantity Pair exists in the Balancing Portfolio Supply
    Curve with a price higher than Price N, then:
    - i. additional Portfolio Constrained On Quantity2 (PConQ2) equals the lesser of:
      - 1. the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched from the Balancing Portfolio Supply Curve Balancing Price-Quantity Pair N+1 with a price (Price N+1) higher than but closest to the Price N, taking into account when the Verve Energy Balancing Portfolio MW level reached the top, or the bottom, as applicable, of Balancing Price-Quantity Pair N in the calculation in clause 6.17.5(a)(i) and the Portfolio Ramp Rate Limit; and
      - the Portfolio Upwards Out of Merit Generation less PConQ1;
         and
    - ii. Constrained On Compensation Price2 (PConP2) equals the Price N+1 identified in clause 6.17.5(c)(i) less the Balancing Price;

- (d) The IMO must repeat the process set out in clause 6.17.5(c) to identify, from the next highest priced Balancing Price-Quantity Pair N+1, any PConQN+1 and PConPN+1 until all Upwards Out of Merit Generation has been attributed to Balancing Price-Quantity Pairs or, otherwise, until there are no remaining Balancing Price-Quantity Pairs in the Balancing Portfolio Supply Curve;
- (e) The Non-Qualifying Constrained On Generation for the Verve Energy
  Balancing Portfolio equals the sum, expressed in sent out MWh, of any
  increase in energy due to a Network Control Service Contract and of the
  following Ancillary Services (if any), which System Management instructed
  Verve Energy to provide from Facilities within the Verve Energy Balancing
  Portfolio:
  - Upwards LFAS Enablement;
  - ii. Upwards LFAS Backup Enablement; and
  - iii. the Spinning Reserve Response Quantity;
- <u>(f)</u> <u>lf:</u>
  - the Non-Qualifying Constrained On Generation exceeds PConQ1, 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 clause 6.17.5(f) for each
  PConQN in ascending order until all Non-Qualifying Constrained On
  Generation has been deducted from PConQN or otherwise until there are
  no remaining 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 and Prices**

- 6.17.5A. Subject to clause 6.17.5C, the IMO must attribute any Downwards Out of Merit Generation from the Verve Energy Balancing Portfolio in a Trading Interval as follows:
  - (a) Constrained Off Portfolio Quantity1 (PCoffQ1) equals the lesser of:
    - i. the maximum energy less the minimum energy, if any, in MWh,
       which could have been dispatched down from Balancing Price Quantity Pair N, with Price N, in the Balancing Portfolio Supply

Curve, taking into account the Available Capacity of the Verve
Energy Balancing Portfolio, the MW level at the start of the Trading
Interval and the Portfolio Ramp Rate Limit, where N is determined
from either of the following Balancing Price-Quantity Pairs or, if
different, the one with the lower price:

- the Balancing Price-Quantity Pair associated with the intersection of Available Capacity and the quantities in all Balancing Price-Quantity Pairs in the Balancing Portfolio Supply Curve summed in order of lowest to highest price; and
- the Balancing Price-Quantity Pair with a price lower than but closest to the Balancing Price; and
- ii. the Portfolio Downwards Out of Merit Generation;
- (b) Portfolio Constrained Off Compensation Price1 (PCoffP1) equals the Balancing Price less the Price N identified in clause 6.17.5A(a);
- (c) If the Portfolio Downwards Out of Merit Generation (in MWh) exceeds
  PCoffQ1 and a Balancing Price-Quantity Pair exists in the Balancing
  Portfolio Supply Curve with a price lower than Price N, then:
  - i. additional Constrained Off Portfolio Quantity2 (PCoffQ2) equals the lesser of:
    - 1. the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched down from the Balancing Portfolio Supply Curve Balancing Price-Quantity Pair N+1 with a price (Price N+1) lower than but closest to Price N, taking into account when the Verve Energy Balancing Portfolio MW level reached the bottom, or top, as applicable, of Balancing Price-Quantity Pair N in the calculation in clause 6.17.5A(a)(i) and the Portfolio Ramp Rate Limit; and
    - the Portfolio Downwards Out of Merit Generation less
       PCoffQ1; and
  - ii. Portfolio Constrained Off Compensation Price2 (PCoffP2) equals
    the Balancing Price less the Price N+1 identified in clause
    6.17.5A(c)(i);
- (d) The IMO must repeat the process set out in clause 6.17.5A(c) to identify, from the next lowest priced Balancing Price-Quantity Pair N+1, any PCoffQN+1 and PCoffPN+1 until all Downwards Out of Merit Generation

has been attributed to Balancing Price-Quantity Pairs or, otherwise, until there are no remaining Balancing Price-Quantity Pairs in the Balancing Portfolio Supply Curve;

- (e) The Non-Qualifying Constrained Off Generation for the Verve Energy

  Balancing Portfolio equals the sum, expressed in sent out MWh, of any
  reduction in sent out energy due to a Network Control Service Contract
  and of the following Ancillary Services (if any), 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 Reserve Response Quantity;
- (f) If:
  - i. the Non-Qualifying Constrained Off Generation exceeds PCoffQ1

    set PCoffQ1 to zero; or
  - ii. otherwise reduce PCoffQ1 by the amount of Non-Qualifying Constrained On Generation;
- (g) The IMO must repeat the process set out in clause 6.17.5A(f) for each PCoffQN in ascending order until all Non-Qualifying Constrained Off Generation has been deducted from PCoffQN or there are no remaining PCoffQN; and
- (h) For settlement purposes under Chapter 9, each PCoffQN calculated in this clause 6.17.5A 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:
    - i. the Facility's Metered Schedule for Trading Interval t; less
    - ii. the Facility's Dispatch Schedule for Trading Interval t; and
  - (b) zero.
- 6.17.4. 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]

# **Balancing Quantities and Prices Exceptions**

- 6.17.5B. Clauses 6.17.3, 6.17.3A, 6.17.4 and 6.17.4A do not apply to Facilities in the Verve Energy Balancing Portfolio.
- 6.17.5C. Where the IMO is unable to attribute:
  - (a) Upwards Out of Merit Generation in accordance with clauses 6.17.3 or 6.17.5, as applicable: or
  - (b) Downwards Out of Merit Generation in accordance with clauses 6.17.4 or 6.17.5A,

for a Market Participant, the Market Participant is not entitled to be paid for any Upwards Out of Merit Generation or Downwards Out of Merit Generation, as applicable.

#### **Non-Balancing Facility Dispatch**

- 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 the sum of either:
  - (a) <u>the sum over all Dispatchable Loads registered to zero, if Market Participant p of the amount that is the product of:</u>
    - i. the quantity, in MWh, by which the Dispatchable Load reduced its consumption in response to a Dispatch Instruction, where this quantity is equal to the lesser of:
      - the Loss Factor adjusted quantity in the Dispatch Instruction provided to the IMO by System Management under clause 6.17.6A(a); or
      - 2. the greater of zero and the difference between the Metered
        Schedule for the Facility in Trading Interval t and the Loss
        Factor adjusted quantity provided in the Facility's Resource
        Plan for Trading Interval t under clause 6.11.1(b)(iii); and

is the Electricity Generation Corporation; or

ii. <u>the applicable Consumption Decrease Price for the Facility inwas</u> issued no Dispatch Instructions for Trading Interval t;

#### or the sum of:

- (b) the sum over all-Scheduled Generators and Dispatchable Loads registered to-by the Market Participant p of the amount that is the product of the following amounts for Trading Interval t:
  - i. the quantity, in MWh, by which the Dispatchable Load increased its consumption in response to a Dispatch Instruction, where this quantity is equal to the lesser of:
    - the Loss Factor adjusted quantity in the Dispatch Instruction provided to the IMO by System Management under clause 6.17.6A(a); or
    - 2. the greater of zero and the difference between the Loss Factor adjusted quantity provided in the Facility's Resource Plan for Trading Interval t under clause 6.11.1(b)(iii) and the Metered Schedule for the Facility in Trading Interval t and; and

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 7.13.1(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 7.13.1(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. <u>the applicable Consumption Increase Price for the Facility in Trading Interval t; and</u>
  - 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 7.13.1(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 7.13.1(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); and

### 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 for Trading Interval t; and

- (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, as provided to the IMO by System Management under clause 7.13.1(eB) (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; and
- (dc) the sum over all Demand Side Programmes registered to the Market Participant p of the amount that is the product of:

- 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 least of:
  - half of the Facility's Capacity Credits;
  - the Dispatch Instruction amount provided by System Management in accordance with clause 7.13.1(eGG); or
  - 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 applicable Consumption Decrease Price for the Facility in Trading Interval t.the price defined in the Market Participant's Balancing Data Submission provided in accordance with clause 6.5A 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); and
- (e) 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).

### 6.17.6A. System Management must:

(a) 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, where
this must be a positive number, together with information regarding
whether it was dispatched upwards or downwards from its Resource Plan;
and

- (b) provide the information in clause 6.17.6A(a) 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(a)(ii), 6.17.6(b)(ii) and 6.17.6(c)(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 other than for Facilities in the Verve Energy Balancing Portfolio, determine a FacilityDispatch Settlement Tolerance for each Scheduled Generator, Non-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:
      - Sent Oeut Ceapacity in the case of a Non-Scheduled Generator and a Scheduled Generator; or
      - 2. nominated maximum consumption quantity in the case of a Dispatchable Load.

as set out in Standing Data <u>divided by two to be expressed as</u> 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 two 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.
- 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, significantlymay impact on market operations.
- 6.20.4. [Blank] The Minimum STEM Price to apply at any time is to be the Maximum STEM Price multiplied by negative one.
- 6.20.6. The IMO must annually review the appropriateness of the value of the Energy Price Limits Maximum STEM Price and Alternative Maximum STEM Price.
- 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:
    - the Authorised Deviation Quantity;
    - ii. the Upward Unauthorised Deviation Quantity;
    - iii. the Downward Unauthorised Deviation Quantity;
    - iv. [Blank]
    - i. the Metered Balancing Quantity;
    - <u>ii.</u> the Facility Loss Factor adjusted Constrained On Quantities and Loss Factor Adjusted Prices calculated in accordance with clauses 6.17.3 and 6.17.3A;

- <u>iii.</u> the Facility Loss Factor adjusted Constrained Off Quantities and Loss Factor Adjusted Prices calculated in accordance with clauses 6.17.4 and 6.17.4A;
- iv. the Verve Energy Balancing Portfolio Loss Factor adjusted
   Constrained On Quantities and prices calculated in accordance with clause 6.17.5;
- v. the Verve Energy Balancing Portfolio Loss Factor adjusted
   Constrained Off Quantities and prices calculated in accordance with clause 6.17.5A; and
- vi. the Non-Balancing Facility Dispatch Instruction Payment.; and
- vi. any Commitment Compensation due to the Market Participant.

### 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 Non-Balancing 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.

- 7.2.1. System Management must prepare:
  - (a) a Load Forecast for a Trading Day by 7:30 AM on the Scheduling Day for the Trading Day, where this Load Forecast is for information purposes; and
  - (b) a Load Forecast for a Trading Day by 1:30 PM on the Scheduling Day for the Trading Day, where this Load Forecast is to be used in the dispatch process.
- 7.2.3. [Blank]System Management must update the Load Forecast for a Trading Day described in clause 7.2.1(b), as required, to reflect:
  - (a) revised weather forecasts;
  - (b) higher or lower actual demand than predicted; and
  - (c) higher or lower Non-Scheduled Generation than predicted.
- 7.2.3A. By 8:30 AM on the Scheduling Day, System Management must determine for each Market Participant that is a provider of Ancillary Services:
  - (a) an estimate of the Loss Factor adjusted MWh of energy that could potentially be called upon by System Management after 1:00 PM on the Scheduling Day to meet Ancillary Service requirements for each Trading Interval of the Trading Day where these estimates must reflect the Ancillary Service standards described in clause 3.10; and
  - (b) a list of Facilities that it might reasonably expect to call upon to provide the energy described in clause 7.2.3A(a).
- 7.2.3B. System Management must provide:
  - the information determined in clauses 7.2.1(a) and 7.2.3A to the IMO in accordance with the IMS Interface Market Procedure by 7:30 AM on the Scheduling Day; and
  - (b) the information determined in clause 7.2.3A to the IMO by 8:30 AM on the Scheduling Day.
- 7.2.3C. If the IMO does not receive information described in clause 7.2.3B by the required time, it must arrange for System Management to provide the information by alternative means prior to 7:50 AM in the case of the information described in clause 7.2.3B(a) and 8:50 AM in the case of the information described in clause 7.2.3B(b) and extend the timeframes in clauses 7.2.3B (a) and 7.2.3B (b) accordingly.
- 7.2.3D. The IMO must confirm receipt of the submissions described in clauses 7.2.3B and 7.2.3C to System Management within five minutes of receiving the submission.
- 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.
- 7.3.4. System Management must provide to the IMO the following information:
  - (a) 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 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.

- 7.5. 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 CorporationVerve 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 clause 7.5.4(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;
- 7.5.7. 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.
- 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 <u>SWIS</u> 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 SWIS Operating State.
- 7.6.1A. Notwithstanding clauses 7.6.2 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.
- 7.6.1B. In seeking to meet the Dispatch Criteria, System Management may issue an Operating Instruction in priority to any 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.
- 7.6.1C. In seeking to meet the Dispatch Criteria System Management must, subject to clause 7.6.1D, issue Dispatch Instructions in the following descending order of priority:
  - (a) Dispatch Instructions to Balancing Facilities in the order and, subject to clause 7.7.6B, for the quantities that appear in the BMO, taking into account Ramp Rate Limits for that Facility;

- (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 for that Facility;
- (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 relevant to that Facility 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 relevant to that Facility.
- 7.6.1D. System Management may only issue Dispatch Instructions under:
  - (a) clause 7.6.1C(b) in priority to clause 7.6.1C(a);
  - (b) clause 7.6.1C(c) in priority to clause 7.6.1C(b); and
  - (c) clause 7.6.1C(d) in priority to clause 7.6.1C(c).

where System Management considers, on reasonable grounds, that it needs to do so in order to:

- (d) avoid a High Risk Operating State or an Emergency Operating State; or
- (e) if the SWIS is in a High Risk Operating State or an Emergency Operating
  State, return the SWIS to a Normal Operating State.
- 7.6.2. For the purposes of clauses 7.6.1 and 7.6.1C, 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 the Dispatch Plan or 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, 7.6.1A, 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.
- 7.6.2A. 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.

- 7.6.2B. 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.3.6(b);
  - (b) if no such BMO is provided, the most recent Forecast BMO for that Trading Interval provided under clause 7A.3.17(b); and
  - (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 on 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.
- 7.6.3. [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. 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 <u>under clause-7.6.1C(d) 7.6.6(e)</u> 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> dispatching Registered Facilities covered by any Balancing Support Contract or 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 Portfolio and Stand Alone Facilities for certain Ancillary Services Electricity</u>

  <u>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 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 Corporation Stand
  Alone Facilities for Ancillary Services 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:
    - Aa 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. Aa plan for which fuels will be used in each Facility in the Verve Energy Balancing Portfolio and guidance as to how that plan might be varied depending on circumstances; and
- iii. Aa description as to how Ancillary Services are to be provided from Facilities in the Verve Energy Balancing Portfolio; and
- iv. <u>a description as to how Ancillary Services are to be provided from</u> 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 by 12:30 PM4:00 PM on the Scheduling Day associated with a Trading Day:
  - 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 Positions energy of all Resource
       Plans associated with the Scheduled Generators and
       Dispatchable Loads of other Market Participants; and
    - the aggregate forecast output of other Market Participants'
       Non-Scheduled Generators, including the aggregate
       forecast output of 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 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 clause 7.6A.2(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 clause 7.6A.2(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) System Management must provide to the IMO by 4:00 PM on the Scheduling Day associated with a Trading Day the aggregate forecast output of all Non-Scheduled Generators for the Trading Day, referred to in clause 7.6A.2(c)(i)(2); 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 <u>Stand Alone Facilities for the purposes of Ancillary Services other than LFAS but including LFAS Backup Enablement, and the dispatch of Electricity Generation Corporation Verve Energy Facilities in the Verve Energy Balancing Portfolio generally, during a Trading Day:</u>
  - (a) System Management may issue an Operating Instruction for Stand Alone
    Facilities, and instruct Facilities in the Verve Energy Balancing Portfolio 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 clause 7.6A.3(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 clause 7.6A.3(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) <u>iI</u>n determining whether or not to deem <u>the Electricity Generation</u> <u>Corporation-Verve Energy</u> to be in non-compliance, System Management must give due regard to any reasonable mitigating circumstances of which <u>the Electricity Generation Corporation-Verve Energy</u> 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 in 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.

#### 7.6A.5. With respect to administration and reporting:

- (a) Representatives of System Management and Verve Energythe Electricity
  Generation Corporation must meet at least once per month to review the
  procedures operating under this clause 7.6A. The minutes of these
  meetings must be recorded by System Management;
- (b) At the meetings described in <u>clause 7.6A.5</u>(a), System Management and <u>Verve Energythe Electricity Generation Corporation</u> must use best endeavours to address any issues arising from the application of the procedures operating under this clause 7.6A. Where agreement cannot be reached either party may seek arbitration by the IMO;
- (c) System Management must report to the IMO any instance where it believes that <u>Verve Energy</u>the <u>Electricity Generation Corporation</u> has failed to meet its obligations under this clause 7.6A;
- (d) Verve EnergyThe Electricity Generation Corporation may report to the IMO any instance where it believes that System Management has failed to meet its obligations under this clause 7.6A;
- (e) Upon request by the IMO, <u>Verve Energy</u>the <u>Electricity Generation</u>

  Corporation and System Management must make available to the IMO

- records created because of the operation of this clause 7.6A and procedures required by this clause 7.6A.
- 7.6A.6. <u>Verve EnergyThe Electricity Generation Corporation</u> and System Management must retain all records, including meeting minutes, created because of the operation of this clause 7.6A and procedures required by this clause 7.6A.
- 7.6A.7. Subject to clause 7.6A.8, System Management must document the procedures System Management and <a href="Verve Energythe Electricity Generation Corporation">Verve Energythe Electricity Generation Corporation</a> must follow to comply with this clause 7.6A, including the process to follow in developing the confidential procedure described in clause 7.6A.8, in the Power System Operation Procedure, and System Management and <a href="Verve Energythe Electricity Generation Corporation">Verve Energythe Electricity Generation Corporation</a> must follow that documented Market Procedure.
- 7.6A.8. Any procedure created or data exchanged in accordance with this clause 7.6A which is commercially sensitive information of <a href="Verve Energythe Electricity">Verve Energythe Electricity</a>
  Generation Corporation must not be included in the Power System Operation Procedure. Instead, such information must be included in a confidential procedure developed by System Management in consultation with <a href="Verve Energythe Electricity Generation Corporation">Verve Energythe Electricity Generation Corporation</a>.
- 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 specified Trading Intervals.
- 7.7.2. Each Dispatch Instruction <u>issued to a Non-Balancing Facility Out of Merit under clause 7.6.1C(c)</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) <u>details of</u> the Registered Facility to which the Dispatch Instruction relates;
  - (b) the time the Dispatch Instruction was issued;
  - (c) the time by which 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))the required level of sent out generation or consumption which may be any one of the following:

- i. a target MW output;
- ii. for a Non-Scheduled Generator, that it no longer needs to restrict its output; or
- iii. a required decrease in consumption, in MW, for a Demand Side Programme;
- (d) the required level of sent out generation or consumption which may be any one of the following:
  - i. a target MW output;
  - ii. a minimum MW level; or
  - iii. a required decrease in consumption (in MW) for a Demand Side Programme;

the ramp rate to maintain until the required level of sent out generation or consumption is reached, which must not exceed any applicable Ramp Rate Limit; 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

  Datathe time at which the ramp rate specified in clause 7.7.3(d) is required to commence.
- 7.7.3A. Each Operating Instruction must contain the following information:
  - (a) details of 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 and an estimate of when the Operating Instruction will cease to apply;
  - (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 ProgrammesNon-Balancing Facilities">Demand Side ProgrammesNon-Balancing Facilities</a> from the <a href="Non-Balancing Facilities">Non-Balancing Facilities</a> from the <a href=
  - (a) 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. System Management must develop, in a Power System Operation Procedure, the information that must be provided by a Market Participant to System Management for each of the Market Participant's Non-Scheduled Generators for each Trading Interval to enable an estimation of the output of each Facility. (in MWh,) to be undertaken by:
  - (a) System Management, as required under clauses <u>6.15.2(b)(i)</u>, 7.7.5B<del>(a)</del> and 7.13.1C(e); and
  - (b) the IMO, as required by the Relevant Level Methodology.

- 7.7.5B. The quantity to be used in clause 6.15.2(b)(i) reduction in the output of a Non-Scheduled Generator as a result of a Dispatch Instruction from System Management, (in MWh<sub>2</sub>) for each Trading Interval 6.17.6(c)(i) is: System Management's estimate, determined in accordance with the Power System Operation Procedure, of the maximum amount of sent out energy, in MWh, which each Non-Scheduled Generator, by Trading Interval, would have supplied in the Trading Interval had a Dispatch Instruction not been issued.
  - (a) where information has been made available to System Management in accordance with the Power System Operation Procedure developed under clause 7.7.5A, System Management's estimate, determined in accordance with the Power System Operation Procedure, of the decrease in output of the Non-Scheduled Generator (in MWh) during the Trading Interval; 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 the Power System Operation Procedure developed under clause 7.7.5A, the greater of zero and the difference between the Resource Plan quantity of the Non-Scheduled Generator (in MWh) less the output of the Non-Scheduled Generator (in MWh) over the Trading Interval derived from its Dispatch Instruction.
- 7.7.5C. The information to be provided by a Market Participant in the Power System

  Operation Procedure developed under clause 7.7.5A may include such modelling
  for the Market Participant's Non-Scheduled Generators that System Management
  considers may assist it to determine the estimates under clause 7.7.5A(a) or to
  meet the Dispatch Criteria.
- 7.7.5D. System Management must provide the estimate required under clause 6.15.2(b)(i) as soon as reasonably practicable but in any event in time for settlement under Chapter 9.
- 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. System Management must develop a Power System Operation Procedure which prescribes 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:
    - i. \_\_confirm receipt of the Dispatch Instruction or Operating Instruction; and

ii. advise if it cannot comply or cannot fully comply with the Dispatch Instruction or Operating Instruction.

The advice and confirmation under this clause 7.7.6 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 a Market Participant has notified System Management in accordance with clause 7.7.6(b) that it cannot comply, or cannot fully comply with a Dispatch Instruction:
  - (a) the Market Participant must provide System Management with the reason it cannot comply or cannot fully comply with the Dispatch Instruction; and
  - (b) the reason provided by the Market Participant under clause 7.7.6A(a) must fall within clause 7.10.2(a).
- 7.7.6B. If a Market Participant notifies System Management under clause 7.7.6(b) or clause 7.10.3 that it cannot fully comply with a Dispatch Instruction, then it must, at the same time, provide notice of:
  - (a) where the Market Participant can comply with the quantity required in the

    Dispatch Instruction but not the required ramp rate, the different ramp rate

    with which the Market Participant can comply; or
  - (b) where the Market Participant cannot comply with the quantity required in the Dispatch Instruction:
    - i. the reduced quantity (if any) and associated ramp rate with which the Market Participant can comply; and
    - ii whether the Market Participant needs to desynchronise the Facility in order to provide the reduced quantity.

and System Management must, subject to meeting the Dispatch Criteria, issue a new Dispatch Instruction or Operating Instruction, as applicable, to the Market Participant in accordance with the advice received.

- 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

- <u>Instruction</u> 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 Instructions</u>, including confirmations of receipt <u>and notifications</u> received from Market Participants <u>under clauses 7.7.6(b) and 7.7.6B</u>, in a form sufficient for independent audit and for settlement purposes.
- 7.7.9. System Management must develop, in a Power System Operating Operation
  Procedure, the procedure System Management and Market Participants must
  follow in forming, issuing, recording, receiving, and confirming and responding to
  Dispatch Instructions and Operating Instructions and that System Management
  must follow in determining the quantities described in clause 7.7.5A(a).
- 7.7.10. When System Management has issued a Dispatch Instruction <u>or an Operating Instruction</u> to a Demand Side Programme to decrease its consumption, System Management may issue a further <u>Hinstruction</u> terminating the requirement for the Demand Side Programme to 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 il</u>mplemented 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
  - (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.
- 7.9.1. 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.
- 7.9.4. System Management must grant permission to synchronise unless:
  - 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) <u>confirm with System Management the expected time of desynchronisation</u> 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 a 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.
- .7.9.8. 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.
- 7.10. 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) subject to paragraph (b), its Resource Plan, except where it relates to Intermittent Generators;
  - (b) if a Dispatch Instruction has recently been issued for a Registered Facility for a Trading Interval, the most recently issued Dispatch Instruction.
    Operating Instruction or Dispatch Order applicable to theits Registered Facility for the Trading Interval.; and
  - (c) a direction given to the Market Participant under clauses 7.6 or 7.10.7(a).
- 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; or
  - (b) the Facility was physically unable to maintain the ramp rate specified in the Dispatch Instruction but:
    - i. the actual output of the Facility did not, at any time the Dispatch

      Instruction applied, vary from the output specified in the Dispatch

      Instruction by more than the applicable Tolerance Range or Facility

      Tolerance Range; and
    - ii. the average output over a Trading Interval of the Facility was equal to the output specified in the Dispatch Instruction.
- 7.10.3. Where a Market Participant becomes aware that it cannot comply or fully comply with meet its Resource Plan, a Dispatch Instruction, or an Operating Instruction—or

- 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 7.10.3 that it cannot comply or fully comply with a Dispatch Instruction:
  - (a) the Market Participant must provide System Management with the reason it cannot comply or cannot fully comply with the Dispatch Instruction; and
  - (b) the reason provided by the Market Participant under clause 7.10.3A(a) must fall within clause 7.10.2(a).
- 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, except where it relates to a Demand Side Programme.
- 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:

- warn the Market Participant about the deviation and request an explanation for the deviation; and
- (d) if necessary to meet the Dispatch Criteria, issue a new Dispatch

  Instruction, Operating Instruction or Dispatch Order in accordance with

  clause 7.6 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.
- 7.10.6A. 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 clause 7A.2 in relation to the Market Participant's Balancing Submission.
- 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;
  - (ba) unless the deviation is within the Tolerance Range, must, in the time, form and manner prescribed in the IMS Interface Market Procedure, 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(a);

- 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 7.10.7(ab).
- 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.
- 7.11.5. 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, which will result in Out of Merit dispatch of the Verve Balancing Portfolio;
  - (h) [Blank]System Management expects to use LFAS Facilities other than in accordance with the LFAS Merit Order under clause 7B.3.8; 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. <u>Subject to clause 7.11.6A, a A Dispatch Advisory must contain the following information:</u>
  - (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>oO</u>perating <u>sS</u>tate 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.
- 7.11.6A. If any information that would otherwise be released under clauses 7.11.6(d),

  7.11.6(dA), 7.11.6(e), 7.11.6(f) or 7.11.6(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 clause 7.11.6A(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:
    - i. 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.

- 7.11.6BA. 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 SWIS 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 7.11.6BA.

### 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:
  - (a) the incidence and extent of issuance of Operating Instructions and Dispatch Instructions;
  - (b) the incidence and extent of non-compliance with Operating Instructions and 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.3.8 the incidence of any Equipment Test approved in accordance with clause 3.21AA, including the date the Equipment Test occurred and the Facility details.

- 7.13.1. 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 Market Procedure or as agreed between the IMO and System Management;
  - (b) [Blank]Load Forecasts prepared by System Management in accordance with clause 7.2.1(b);
  - (c) a schedule of all of the Dispatch Instructions of the 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 <u>and an estimate of the output, in</u> <u>MWh, of each generating system not monitored by System Management's</u> <u>SCADA system,</u> 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 of 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;
    - iii. any Network Control Service Contract;
    - iv. any test of equipment allowed under these Market Rules; or
    - v. any failure of an Electricity Generation Corporation a Verve Energy Facility to follow the scheduling and dispatch procedures relating to clause 7.6A;
  - (dA) the MWh energy dispatched under a Balancing Support Contract for each Trading Interval in the Trading Day by Facility;

- (dAB) 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] for each LFAS Facility, the quantity of any Ex-post Upwards LFAS
  Enablement that was being provided at the end of each Trading Interval by
  that LFAS Facility;
- (eA) for each LFAS Facility, the quantity of any Upwards LFAS Backup

  Enablement that System Management activated by the end of each

  Trading Interval by that LFAS Facility;
- (eB) for each LFAS Facility, the quantity of any Downwards LFAS Backup
  Enablement that System Management activated by the end of each
  Trading Interval by that LFAS Facility;
- (eC) for each LFAS Facility, the quantity of any Ex-post Downwards LFAS

  Enablement that was being provided at the end of each Trading Interval by that LFAS Facility;
- (eD) by Trading Interval, the Load Rejection Reserve Response Quantity and the Spinning Reserve Response Quantity calculated in accordance with the Power System Operation Procedure:
- (eAE) details of notifications received by System Management in accordance with clause 7.5.4;
- (eBF) the maximum quantity of sent out energy estimated decrease, in MWh, in the output of which each Non-Scheduled Generator, by Trading Interval, would have generated in the Trading Interval had a Dispatch Instruction not been issued as a result of System Management Dispatch Instructions, as determined in accordance with clause 7.7.5B;
- (eCG) the required decrease, in MWh, in the consumption of each Demand Side Programme, by Trading Interval, as a result of System Management Dispatch Instructions—where Tthis is to be used in settlement as the quantity described in clause 6.17.6(cd)(i)(2);
- (f) [Blank] in instances where System Management has not used an LFAS Facility which they would otherwise have been required to use under clause 7B.3.6, the reasons why it has not used the LFAS Facility;
- (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 that were subject to a Commissioning Test, or a test of Reserve Capacity <u>Test</u> or an <u>Equipment Test</u> 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. The IMO may request, and System Management must provide, within 10 Business Days of receipt of a request from the IMO:
  - for each Facility, all information made available to System Management under the Power System Operation Procedure developed under clause 7.7.5A;
  - (b) an estimate of the total quantity of energy not served (in MWh) due to involuntary load shedding (manual and automatic);
  - (c) an estimate of the reduction in energy consumption (in MWh) of any Interruptible Loads in accordance with the terms of an Ancillary Service Contract;
  - (d) a schedule of all instructions, including Dispatch Orders, provided to the Electricity Generation CorporationVerve Energy's Non-Scheduled Generators to deviate from the Dispatch Plan or change their commitment or output in accordance with clause 7.6A.3; and
  - (e) an estimate of the decrease in the output (in MWh) of each Electricity

    Generation Corporation of Verve Energy's Non-Scheduled Generators 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),

for each Trading Interval during the time period specified by the IMO in its request.

7.13.4. System Management must provide the IMO with SCADA data by Facility and the Operational System Load Estimate in accordance with the IMS Interface Market Procedure.

## 7A. Balancing Market

### 7A.1. Balancing Market

- 7A.1.1. The IMO must operate the Balancing Market.
- 7A.1.2. The IMO must determine the Balancing Market Commencement Day.
- 7A.1.3. 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.1.4. 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.1.5. All Rule Participants must take into account the Balancing Market Objectives in undertaking their functions and obligations under this Chapter 7A.
- 7A.1.6. The IMO must develop a Balancing Facility Requirements Market Procedure specifying:
  - (a) technical and communication criteria that a Balancing Facility, or a type of Balancing Facility, must meet, including:
    - Facility quantity parameters and limits for participation in Balancing;
    - ii. the manner and forms of communication to be used while participating in Balancing, including receiving Dispatch Instructions; and

- iii. ramp rate limitations; and
- (b) the type of conditions the IMO may impose under clause 7A.1.11(b) and the manner and circumstances in which they may be imposed and lifted.
- 7A.1.7. The IMO must consult with System Management when creating and amending the Balancing Facility Requirements.
- 7A.1.8. A Market Participant must ensure that its Balancing Facilities with a rated capacity equal to or greater than 10 MW meet the relevant specifications of the Balancing Facility Requirements.
- 7A.1.9. A Market Participant may inform the IMO that a Balancing Facility registered to that Market Participant with a rated capacity less than 10 MW meets the relevant specifications of the Balancing Facility Requirements.
- 7A.1.10. 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 a Balancing Facility registered to that Market Participant meets the relevant specifications of the Balancing Facility Requirements.
- 7A.1.11. If based on the information provided to it under clause 7A.1.10, the IMO determines that a Balancing Facility, including a Balancing Facility with a rated capacity of less than 10 MW, does not meet the relevant specifications of the Balancing Facility Requirements, the IMO may impose conditions on the manner in which that Balancing Facility must participate in the Balancing Market under these Market Rules, including:
  - (a) the prices at which the Market Participant may include in a Balancing
    Submission in Balancing Price-Quantity Pairs for that Facility; and
  - (b) the manner and time in which a Balancing Submission for that Balancing Facility must be submitted.
- 7A.1.12. Where a condition imposed by the IMO under clause 7A.1.11 is inconsistent with another clause in the Market Rules the condition is to be given effect notwithstanding that inconsistency.
- 7A.1.13. The IMO must publish a decision to impose a condition on a Balancing Facility under clause 7A.1.11 together with the details of such condition.
- 7A.1.14. 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.1.15. 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.1.16. With effect on and from the Trading Interval commencing at 8:00 AM on the

  Balancing Market Commencement Day, the IMO must 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 two
  hours and no longer than six hours before the commencement of a Trading
  Interval and must be published on the Market Web Site.
- 7A.1.17. The IMO may, from time to time, change the point in time determined under clause
  7A.1.16 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 Submissions

- 7A.2.1. A Market Participant must ensure that:
  - it has made a Balancing Submission in accordance with clause 7A.2.4 for each of its Balancing Facilities, excluding Facilities in the Verve Energy Balancing Portfolio;
  - (b) it has made a Balancing Submission for all Trading Intervals in the Balancing Horizon for each of its Balancing Facilities; and
  - (c) the Balancing Submission is made before Balancing Gate Closure or, in the case of the Verve Energy Balancing Portfolio, before the times specified in clause 7A.2.9(d), 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 covered in the Balancing Submission, whether the Balancing Facility is to use Liquid Fuel or Non-Liquid Fuel; and
- (e) specify, for each Trading Interval covered in the Balancing Submission, Ramp Rate Limits.
- 7A.2.5. For the purposes of clause 7A.2.4(b), where the IMO accepts a Balancing

  Submission from a Market Participant that complies with clause 7A.2.4(a), 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),
  7A.2.9(e) or 7A.2.9(f), 7A.2.10 or 7A.3.5 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 the 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 provided by
    the IMO under clause 7A.3.17 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
    - <u>iii.</u> 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 specified
  in clause 7A.2.9(c)(i); and

- iii. for each completed Trading Interval, advise the IMO which

  Facilities actually provided the Ancillary Services referred to in

  clause 7A.2.9(c)(i) in the Trading Interval;
- (d) may update its Balancing Portfolio Supply Curve in relation to any

  <u>Trading Interval in the Balancing Horizon for which Balancing Gate</u>

  Closure for that Trading Interval is more than two hours in the future:
  - i. by submitting its updated Balancing Portfolio Supply Curve to the IMO immediately before 6:00 PM; or
  - ii. otherwise by submitting its updated Balancing Portfolio Supply

    Curve to the IMO within one 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 is more than two hours in the future if a Facility in the Verve
  Energy Balancing Portfolio has experienced a Forced Outage since the
  last Balancing Submission; and
- may after the time specified in clause 7A.2.9(d), update its Balancing
  Portfolio Supply Curve to reflect the impact of a Forced Outage which
  Verve Energy expects will cause a Facility to run on Liquid Fuel, where
  the Facility would not have run on Liquid Fuel but for the Forced Outage,
  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 of that Facility and the Ramp Rate Limit is accurate but no prices are 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 of that Facility and the Ramp Rate Limit is accurate but no prices are altered, in respect of that Trading Interval, as soon as reasonably practicable; or
  - (c) if the inaccuracy is due to the Market Participant receiving an Operating
    Instruction, may make a new, accurate Balancing Submission that
    reflects the Operating Instruction.

- 7A.2.11. Where a Market Participant has submitted a Balancing Submission in accordance with clauses 7A.2.10(a) or 7A.2.10(b) 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 of one of the Facilities in the Verve Energy Balancing Portfolio 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:
  - 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 relating to the Balancing Market; and

- (c) not include information in a Balancing Submission relating to prices for a purpose of influencing the determination of the Constrained Off

  Compensation Price, the Constrained Off Quantity which the Facility may provide, the Constrained On Compensation Price or the Constrained On Quantity which the 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 submitted, the Market Participant had a genuine intention to honour the terms of 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 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.

- (a) If a Market Participant does not have reasonable grounds for a price, quantity or Ramp Rate Limit it has included in a Balancing Submission at the time it submits that Balancing Submission, then the Market Participant is, for the purposes of clause 7A.2.13(b), taken to have known that the Balancing Submission was likely to lead to another Rule Participant being misled or deceived as to the existence or non-existence of a material fact relating to the Balancing Market.
- (b) For the purposes of clause 7A.2.16(a), a Market Participant must adduce evidence that it had reasonable grounds for including a price, quantity or Ramp Rate Limit in the Balancing Submission.
- (c) To avoid doubt, the effect of clause 7A.2.16(b) is to place an evidentiary burden on a Market Participant, and clause 7A.2.16(b) does not have the effect that, merely because such evidence is adduced, the Market Participant who submitted the Balancing Submission is taken to have had reasonable grounds for including a price, quantity or Ramp Rate Limit, as applicable.
- (d) Clause 7A.2.16(a) does not imply that merely because the Market
  Participant had reasonable grounds for making the representation or the
  conduct referred to in this Chapter 7A, and in particular putting the price,
  quantity or Ramp Rate Limit in a Balancing Submission submitted by a
  Market Participant, that such representation or conduct is not misleading.
- 7A.2.17. Subject to clauses 7A.2.3, 7A.2.9(c) and 7A.3.5, a Market Participant must not, for any Trading Interval, offer prices in its Balancing Submission in excess of the Market Participant's reasonable expectation of the short run marginal cost of generating the relevant electricity by the Balancing Facility, when such behaviour relates to market power.
- 7A.2.18. 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.2.19. 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 clauses 7A.2.8, 7A.2.9, 7A.2.13 or 7A.2.17 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 the Balancing Market Commencement Day was less than 12 months, prior to the date the civil penalty is received.

## 7A.3. BMO and Pricing BMO

- 7A.3.1. The IMO must convert the prices for each Trading Interval in Balancing PriceQuantity 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, is obtained by:
  - (a) ranking the Balancing Price-Quantity Pairs for a Trading Interval and
    associated Balancing Facilities contained in Balancing Submissions in
    order of lowest to highest prices (where these prices have been adjusted
    where appropriate in accordance with clause 7A.3.1); and
  - (b) where System Management provides a forecast of the EOI Quantity for a

    Non-Scheduled Generator under clause 7A.3.15, adjusting the NonScheduled Generator's Balancing Submission to reflect 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 must break the tie in accordance with the Balancing Forecast 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.1.11(b);
- (c) a Balancing Facility that does not meet the Balancing Facility Requirements;
- (d) a Balancing Facility providing an Ancillary Service other than LFAS;
- (e) a Balancing Facility providing LFAS; and
- (f) priority will be based on the daily random number assigned to the Facility.
- 7A.3.4. A Balancing Facility assigned priority under clause 7A.3.3 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.3.5. A Market Participant, other than Verve Energy in respect of the Verve Energy

  Balancing Portfolio, must make a new Balancing Submission within 30 minutes of the end of the Trading Interval in which the information is published under clause 7B.3.4(e) as follows:
  - (a) where its LFAS Price-Quantity Pair is selected under clause 7B.3.4(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 the quantity of capacity for the Facility specified in item 1(b)(xiii) of Standing Data is at the Minimum STEM Price; and
  - (b) where its LFAS Price-Quantity Pair is selected under clause 7B.3.4(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.3.6. 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 for a Trading Interval, provide this

  BMO to System Management between 15 to 30 minutes before the start
  of that Trading Interval.
- 7A.3.7. System Management must, no later than two 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.3.8. The IMO must, by the end of a Trading Day where it has been provided with the information under clause 7A.3.7 for a Trading Interval in the previous Trading Day:
  - (a) use that information to determine a Provisional Pricing BMO for that Trading Interval;
  - (b) use the Provisional Pricing BMO under clause 7A.3.8(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.3.9. Subject to clause 7A.3.12, 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.3.7, provide the IMO with any updated adjustments to the information provided under clause 7A.3.7 and the IMO must use any such updated SOI Quantity and EOI Quantity information to revise the Provisional Pricing BMO accordingly.
- 7A.3.10. The IMO must, subject to clause 7A.3.13, use the Provisional Pricing BMO determined under clause 7A.3.8(a), as revised under clause 7A.3.9, 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.3.8(b), that price is deemed to be the Balancing Price.
- 7A.3.11. The IMO must, subject to clause 7A.3.12, publish the Balancing Price for each Trading Interval in a Trading Day on the next Business Day after the latest time specified in clause 7A.3.9.
- 7A.3.12. 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.3.7 or 7A.3.9, the IMO may extend the timeline prescribed in clause 7A.3.11 and/or 7A.3.9. No such extension may be given that would result in a delay of that timeline of more than two Business Days. The IMO must advise Rule Participants of any such extension as soon as practicable.
- 7A.3.13. If the IMO is unable to determine the Balancing Price under clause 7A.3.10 in time to publish it in accordance with clause 7A.3.11, including because it has not

received the information required to be provided by System Management under clauses 7A.3.7 or 7A.3.9, the IMO must determine the Balancing Price:

- (a) where the Relevant Dispatch Quantity and/or Pricing BMO is not available, the IMO must use 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 must use the most recent Forecast BMO in place of the
  BMO in clause 7A.3.13(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.3.14. Once the IMO has published the Balancing Price under clause 7A.3.11 it cannot be altered by:
  - (a) disagreement under clause 9.20.6; or
  - (b) disputes under clause 9.21.1.

#### **Forecast BMO**

- 7A.3.15. 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.3.16. The IMO must for each future Trading Interval in the Balancing Horizon determine a Forecast BMO.

- 7A.3.17. Where the IMO determines a Forecast BMO under clause 7A.3.16, the IMO must:
  - (a) provide to each Market Participant the Balancing quantities expected to be provided by that Market Participant for each future Trading Interval in the Balancing Horizon; and
  - (b) provide to System Management the Forecast BMO.
- 7A.3.18. The IMO must provide the information required under clause 7A.3.17 at approximately the same time as the IMO publishes the Balancing Forecasts under clause 7A.3.21.

## **Balancing Forecast**

- 7A.3.19. The IMO must, if it has sufficient information available to it, determine and publish under clause 7A.3.21 the Balancing Forecast for each Trading Interval in the Balancing Horizon in accordance with the Balancing Forecast Market Procedure.
- 7A.3.20. The IMO must develop the Balancing Forecast Market Procedure in accordance with the following principles:
  - (a) to the extent reasonably practicable, the Balancing Forecasts and the Forecast BMOs 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.3.21. 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 TradingInterval 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 Non-Scheduled Generators which is received from System Management under clause 7.6A.2(e).

## 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 five Business Days that the IMO should reject the Facility as a Stand Alone Facility, reject the nomination;
  - (c) if System Management does not provide any advice within five Business Days, allow System Management a further five Business Days to advise whether the IMO should reject the Facility as a Stand Alone Facility;
  - (d) if the IMO does not receive any advice in accordance with clause 7A.4.2(b) or 7A.4.2(c), accept the nomination; and
  - (e) notify Verve Energy of the IMO's decision and, at the same time, notify the Market of any further time allowed under clause 7A.4.2(c).
- 7A.4.3. A Facility may undergo a trial as a Stand Alone Facility under this clause 7A.4 once only.
- 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 must 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) seven Business 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 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 five Business Days that the IMO should reject the nomination of the Stand Alone Facility, reject the nomination;
  - (c) otherwise accept the nominated Stand Alone Facility as a permanent Stand Alone Facility; and
  - (d) notify Verve Energy of the IMO's decision and the reasons for that 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;
    - 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 Service Market

## 7B.1. LFAS Market

- 7B.1.1. The IMO must 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 Generators, 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 and any LFAS Submission 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 Balancing 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 Balancing 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 Portfolio 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.3.15(b), if any.
- 7B.2.6. Verve Energy, in its LFAS Submission for the Verve Energy Balancing Portfolio, 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) abide by any enablement or quantity restrictions specified by System Management under clause 2.34.7C(b).
- 7B.2.8. For the purposes of clause 7B.2.7(b), where the IMO accepts an LFAS

  Submission from a Market Participant that complies with clause 7B.2.7(a), 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 clauses 7B.2.2 or 7B.2.4 in respect of the same LFAS Facility covering the same Trading Interval as an earlier LFAS

<u>Submission</u>, overrides the earlier LFAS Submission 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 an 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 relating to 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 submitted, the Market Participant had a genuine intention to honour the terms of 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 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) If a Market Participant does not have reasonable grounds for the price and quantity it has included in a LFAS Submission at the time it submits the LFAS Submission, then the Market Participant is, for the purposes of clause 7B.2.11(b), taken to have known that the LFAS Submission was likely to lead to another Rule Participant being misled or deceived as to the existence or non-existence of a material fact relating to the LFAS Market.
- (b) For the purposes of clause 7B.2.14(a), a Market Participant must adduce evidence that it had reasonable grounds for including the price or quantity in the LFAS Submission.
- (c) To avoid doubt, the effect of clause 7B.2.14(b) is to place an evidentiary burden on a Market Participant, and clause 7B.2.14(b) does not have the effect that, merely because such evidence is adduced, the Market Participant who submitted the LFAS Submission is taken to have had reasonable grounds for including the price or quantity, as applicable.
- (d) Clause 7B.2.14(a) does not imply that merely because the Market

  Participant had reasonable grounds for making the representation or the conduct referred to in this Chapter 7B, and in particular putting the price or quantity in a LFAS Submission submitted by a Market Participant, that such representation or conduct is not misleading.
- 7B.2.15. 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 by the LFAS Facility

  providing LFAS when such behaviour relates to market power.
- 7B.2.16. 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.2.17. 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

- clauses 7B.2.10, 7B.2.11 or 7B.2.15, 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 the Balancing Market Commencement Day was less than 12 months, prior to the date the civil penalty is received.
- 7B.2.18. Where an LFAS Facility is selected under clauses 7B.3.4(b) or 7B.3.4(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 and System
  Management respectively, whether the LFAS Facility is physically able to provide
  any LFAS in that Trading Interval and if so, the quantity, in MW.
- 7B.2.19. Where an LFAS Facility is selected under clauses 7B.3.4(b) or 7B.3.4(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.2.18, provide the LFAS in the Trading Interval when required to do so by System Management under the Market Rules.

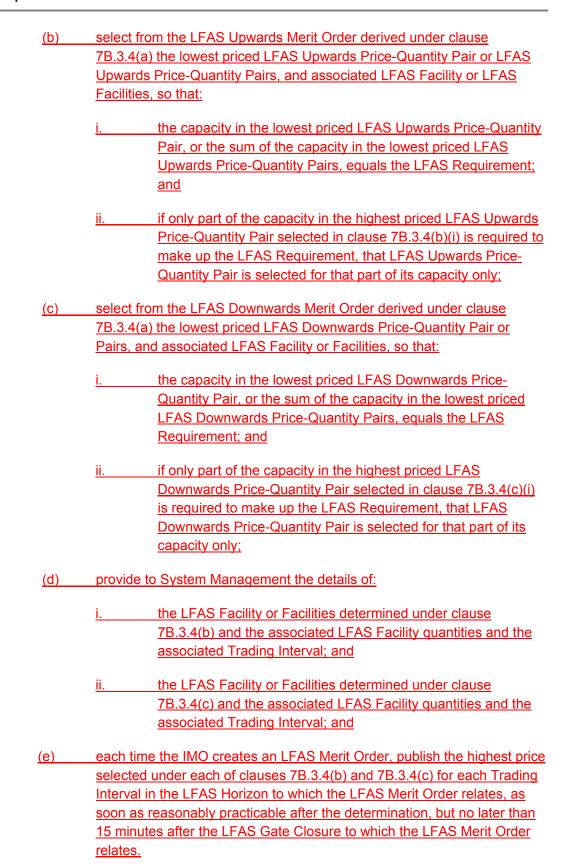
## 7B.3 LFAS Merit Order

- 7B.3.1. The IMO must 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.3.3, 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.3.2. 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 7B.3.3, 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.3.3. In circumstances where there is a tie in the ranking of LFAS Facilities under clauses 7B.3.1 or 7B.3.2 in the LFAS Merit Order the IMO must assign priority to break the tie for the Trading Interval in which the tie occurred. Priority, for the relevant Trading Day, will be based on a daily random number assigned to each LFAS Facility in accordance with the Balancing Forecast Market Procedure.
- 7B.3.4. The IMO must to the extent that it is able:
  - (a) determine the LFAS Merit Order for each Trading Interval in an 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;



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

- (a) provide the information referred to in clause 7B.3.4(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.3.4(b) and 7B.3.4(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. Subject to clauses 7B.3.7, 7B.3.8 and 7B.4.1, System Management must use the LFAS Facilities referred to in clause 7B.3.4(d) for meeting LFAS requirements in the associated Trading Interval in reasonable proportion to the quantities selected under clauses 7B.3.4(b) and 7B.3.4(c), as applicable, and those LFAS Facilities must provide those LFAS requirements.
- 7B.3.7. Where the IMO is unable to publish an LFAS Merit Order for a Trading Interval in accordance with clause 7B.3.4(d), System Management must use the Registered Facilities of Verve Energy to provide LFAS for that Trading Interval.
- 7B.3.8. 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.3.9. The IMO must, at the time it makes the selection under clause 7B.3.4(b), determine the Upwards LFAS Price for a Trading Interval as the highest price in those selected LFAS Upwards Price-Quantity Pairs.
- 7B.3.10. The IMO must, at the time it makes the selection under clause 7B.3.4(c), determine the Downwards LFAS Price for a Trading Interval as the highest price in those selected LFAS Downward Price-Quantity Pairs.
- 7B.3.11. The IMO must, by the end of a Trading Day, publish the LFAS Price for each Trading Interval for that Trading Day.
- 7B.3.12. If the IMO is unable to determine an LFAS Price under clauses 7B.3.9 or 7B.3.10 in time to publish it in accordance with clause 7B.3.11, the IMO must 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.3.13. Once the IMO has published an LFAS Price under clause 7B.3.11 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.3.14. 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.3.15. Where the IMO determines the forecast LFAS Merit Order under clause 7B.3.14, the IMO must, to the extent it is reasonably able, within a Trading Interval, publish on the Market Web Site to each Market Participant:
  - (a) the LFAS Quantities expected to be provided by that Market Participant for each Trading Interval in the Balancing Horizon as indicated by the forecast LFAS Merit Orders;
  - (b) any quantities provided to the IMO by System Management under clauses 7B.1.4 and 7B.1.5;
  - (c) forecasts of LFAS Prices based upon the forecast LFAS Merit Orders;
  - (d) forecasts of LFAS Upwards Merit Orders and LFAS Downwards Merit

    Orders in the form of anonymous LFAS Upwards Price-Quantity Pairs

    and LFAS Downwards Price-Quantity Pairs; and
  - (e) forecasts of Backup Upwards LFAS Prices and Backup Downwards

    LFAS Prices for each future Trading Interval in the Balancing Horizon.
- 7B.3.16. Where the IMO determines the forecast LFAS Merit Order under clause 7B.3.14, the IMO must, to the extent it is reasonably able, within a Trading Interval, provide to System Management 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 or part of its LFAS when called upon to do so by System Management in accordance with clause 7B.3.6 or 7B.3.8; or

(b) the quantity of LFAS in a Trading Interval required by System
 Management is greater than the most recent LFAS Quantity published under clause (b) for that Trading Interval,

System Management may use the Verve Energy Balancing Portfolio or a Stand Alone Facility, 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 or a
Stand Alone Facility to provide LFAS under clause 7B.3.7 or 7B.4.1 in a Trading
Interval, System Management must, as soon as reasonably practicable, advise the
IMO of the Facilities which provided the LFAS and the quantity, in MW, of LFAS
which was provided by the Facility 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.
- 9.3.4A. 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 the Electricity Retail Corporation Synergy 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.

9.7.1. The Reserve Capacity settlement amount for Market Participant p for Trading Month m is:

```
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) × Shortfall Share(p,m)
      - Shared Reserve Capacity Cost(m) × Capacity Share(p,m)
       + Capacity LF(m)LF Capacity Cost(m) × Capacity Share(p,m)
Where:
       Shortfall Share(p,m) =
         0, if Sum(n \in P, (IRCR(n,m) - Sum(q \in P, CC\_ANSPA(q,n,m)))
                                    + Sum(a∈ A, CC_ASPA(q,n,m,a))))) = 0
         otherwise.
```

```
\begin{split} (IRCR(p,m) - Sum(q \in P, CC\_ANSPA(q,p,m) \\ + Sum(a \in A, CC\_ASPA(q,p,m,a)))) \ / \\ Sum(n \in P, \ (IRCR(n,m) - Sum(q, CC\_ANSPA(q,n,m) \\ + 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)</u> 9.9.2(g).

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

```
\frac{\mathsf{BSA}(\mathsf{p},\mathsf{d},\mathsf{t}) = \mathsf{MCAP}(\mathsf{d},\mathsf{t}) \times \mathsf{ADQ}(\mathsf{p},\mathsf{d},\mathsf{t}) + \mathsf{UDAP}(\mathsf{d},\mathsf{t}) \times \mathsf{UUDQ}(\mathsf{p},\mathsf{d},\mathsf{t})}{\mathsf{+} \; \mathsf{DDAP}(\mathsf{d},\mathsf{t}) \times \mathsf{DUDQ}(\mathsf{p},\mathsf{d},\mathsf{t}) + \mathsf{DIP}(\mathsf{p},\mathsf{d},\mathsf{t})}
```

 $\underline{\mathsf{BSA}(\mathsf{p},\mathsf{d},\mathsf{t}) = \mathsf{Balancing\ Price\ } (\mathsf{d},\mathsf{t})\ \times\ \mathsf{MBQ}(\mathsf{p},\mathsf{d},\mathsf{t}) + \mathsf{CONC}(\mathsf{p},\mathsf{d},\mathsf{t}) + \mathsf{COFFC}(\mathsf{p},\mathsf{d},\mathsf{t}) + }}$   $\mathsf{DIP}(\mathsf{p},\mathsf{d},\mathsf{t}).$ 

#### 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.3.10;

CONC(p,d,t) is the Constrained On Compensation for Market Participant p for Trading Interval t of Trading Day d. For a Market Participant other than Verve Energy, CONC(p,d,t) is the sum of all ConQN x ConPN for each of the Market Participant's Scheduled Generators and Non-Scheduled Generators for Trading Interval t. For Verve Energy, CONC(p,d,t) is the sum of all PConQN x PConPN plus the sum of all ConQN x ConPN for each Stand Alone Facility for Trading Interval t, where ConQN, ConPN, PConQN and PConPN are calculated in accordance with clause 6.17;

COFFC(p,d,t) is the Constrained Off Compensation for Market Participant p for Trading Interval t of Trading Day d. For a Market Participant other than Verve Energy, COFFC(p,d,t) is the sum of all CoffQN x CoffPN for each of the Market Participant's Scheduled Generators and Non-Scheduled Generators for Trading Interval t. For Verve Energy, COFFC(p,d,t) is the sum of all PCoffQN x PCoffPN plus the sum of all CoffQN x CoffPN for each Stand Alone Facility for Trading Interval t, where CoffQN, CoffPN, PCoffQN and PCoffPN are calculated in accordance with clause 6.17; and

<u>DIP(p,d,t)</u> is the 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.

# 9.9.1. 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) × 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(I);

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:

```
Availability Cost(m) =
             0.5 × (Margin Peak(m) × Sum(t∈Peak,MCAP(t)
             × (Capacity R Peak(m) Sum(c∈CAS_SR,ASP_SRQ(c,t))))
             + 0.5 × (Margin_Off-Peak(m) × Sum(t∈Off-Peak,MCAP(t)
             \times (Capacity_R_Off-Peak(m) - Sum(c \in CAS_SR,ASP_SRQ(c,t))))
             + Sum(c∈CAS SR,ASP SRPayment(c,m))
             + Sum(c∈CAS LF,ASP LFPayment(c,m))
    the Spinning Reserve cost share for Market Participant p, which is a
      Market Generator, for Trading Month m:
      Reserve Cost Share(p,m) =
             0.5 × (Margin Peak(m) × Sum(t∈Peak,MCAP(t)
             × Reserve Share(p,t)
             × (Capacity_R_Peak(m) - Sum(c∈CAS_SR,ASP_SRQ(c,t) - 0.5 ×
             LFR(m))))
             + 0.5 × (Margin_Off-Peak(m) × Sum(t∈Off-Peak,MCAP(t)
             × Reserve Share(p,t)
             × (Capacity R Off Peak(m) Sum(c∈CAS SR,ASP SRQ(c,t))
             0.5 \times LFR(m)))
             + Sum(t∈T, Reserve_Share(p,t)
             × Sum(c∈CAS SR,ASP SRPayment(c,m) / TITM))
(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 providing upwards LFAS 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)
      the payment to Market Participant p for providing downwards LFAS in
(b)
      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)
      the total payment to Market Participant p for Load Following Service in
(c)
      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:

<u>LF Market Payment(p,m) =</u>
Sum(t∈T, LF Market Payment(p,t))

(e) the total payment to all Market Participants for Load Following Service in Trading Interval t:

<u>LF Market Payment(t) =</u>
Sum(p∈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 × Margin(t) × Balancing\_Price(t)

<u>× max(0,SR Capacity(t) – LF Up Capacity(t)</u>

-Sum(c∈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 Service in Trading Interval t in Trading Month m:

AS Cost Saving(t) =

0.5 × Margin(t) × Balancing Price(t)

<u>× min(LF\_Up\_Capacity(t).</u>

SR Capacity(t) – Sum( $c \in CAS$  SR,ASP SRQ(c,t)))

(j) the allocation factor for the Ancillary Service cost saving in Trading Interval t:

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 providing upwards LFAS for Trading Interval t:

```
LF Up Capacity(t) = Sum(p \in P,LF Up(p,t) + LF Up Backup(p,t))
```

(I) the Spinning Reserve availability cost share for Market Participant p, which is a Market Generator, for Trading Month m:

SR Availability Cost Share(p,m) =

 $Sum(t \in T, SR Share(p,t) \times$ 

 $((0.5 \times Margin(t) \times Balancing Price(t))$ 

<u>× max(0, SR Capacity(t) – LF Up Capacity(t)</u>

-Sum(c∈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:

SR\_Availability\_Cost(m) =

Sum(p∈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) =

 $Sum(t \in T, LF Share(p,m))$ 

× (LF Market Payment(t)

- AS Saving Factor(t) × AS Cost Saving(t)))

(o) the total Load Following market cost for Trading Month m:

LF Market Cost(m) =

Sum(p∈P, LF Market Cost Share(p,m))

(p) the Load Following capacity cost share for Market Participant p for Trading Month m:

LF Capacity Cost Share(p,m) =

(Monthly Reserve Capacity Price(m) / TITM)

 $\times$  Sum(t $\in$ T, LF Share(p,m)  $\times$  LF Up Capacity(t))

(q) the total Load Following capacity cost for Trading Month m:

LF Capacity Cost(m) =

Sum(p∈P, LF Capacity Cost Share(p,m))

#### 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 Upwards LFAS Enablement quantities provided under clause 7.13.1(e) for LFAS Facilities registered to Market Participant p in Trading Interval t;

LF Up Price(t) is the Upwards LFAS Price for Trading Interval t;

LF Up Backup(p,t) is the sum of any Upwards LFAS Backup Enablement quantities for Trading Interval t if Market Participant p is Verve Energy and 0 otherwise;

LF Up Backup Price(p,t) 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(eC) 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)</u> is the sum of any Downwards LFAS Backup Enablement quantities for Trading Interval t if Market Participant p is Verve <u>Energy and 0 otherwise;</u>

<u>LF Down Backup Price(p,t) is the Backup Downwards LFAS Price for</u> Trading Interval t if Market Participant p is Verve Energy and 0 otherwise;

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);

Ex-post Upwards LFAS Enablement(t) 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}
```

## <u>W</u>where

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  $3.11.8B_{71}$  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} \text{Cost\_LR\_Shortfall(m) =} \\ & \text{Max(0, Sum(c \in CAS\_LR, ASP\_LRPayment(c,m))} \\ & + \text{Sum(c \in CAS\_BS, ASP\_BSPayment(c,m))} \\ & - \text{Cost\_LR(m))} \end{aligned}
```

## <u>W</u>where

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; 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) x Sum(q, Com\_Compensation(q,m) + Out\_Compensation(p,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  $\frac{3.22(1)(h)3.22.1(h)}{3.22.1(h)}$ ; 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 <u>Maximum Theoretical Energy Schedule and the Minimum</u>
   <u>Theoretical Energy Schedule Dispatch Schedule</u> data for each of the Market Participant's Registered Facilities;
- the meter reading for each Registered Facility associated with the Market Participant and to which paragraph clause 9.18.3(c)(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 ConQN, CoffQN, PConQN, PCoffQN, Non Qualifying
  Constrained On Generation and Non Qualifying Constrained Off
  Generation under Chapter 6; in the case of the Electricity
  Generation Corporation the MWh quantity of non-compliance; and
- viiiB. details of any Non-Balancing Facility Dispatch Instruction Payment;
- viiiC. 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;
  - 2. Balancing settlement;
  - 3. Ancillary Services settlement;
  - 4. Commitment and outage Outage compensation settlement;
  - 4A. Non Compliance Cost settlement;
  - 5. Reconciliation settlement;
  - 6. [Blank];
  - 7. Fee settlement; and
  - 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:
  - i. 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 <u>adjusted settlement both</u> values <u>in the adjusted Settlement Statement and provide an explanation of the any changes on request.</u>
- 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

## Chapter 9

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 <u>greater than one dollar</u> to a Rule Participant, then the IMO must <u>pay make available</u> 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.

- 10.2.2. 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:
    - i. 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:
    - i. 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 clause 10.2.3(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>eanmay</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;

- (e) the IMO canmay declare incomplete working documents to be IMO Confidential;
- (f) the IMO <u>canmay</u> declare incomplete working documents of System Management to be System Management Confidential; <u>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;
- (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; and
- (k) information that may be aggregated or provided in a form that does not disclose material that would otherwise be confidential, is to be Public.
- 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) <u>that, other than as a result of a breach of confidentiality obligations, is or becomes</u> <u>already</u> known to <u>thea</u> 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 legal 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 clauses 10.2.6(a), 10.2.6(b) or 10.2.6(c).
- 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;
    - 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 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 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; and
  - 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
    - 3. 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 outcomes of Reserve Capacity

  Tests 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;
  - 2. TDL\_Ratio as calculated in accordance with Appendix 5, STEP 8; and
  - 3. Total\_Ratio as calculated in accordance with Appendix 5, STEP 10; and
- x. The following information identified for a Reserve Capacity Cycle under the Relevant Level Methodology:
  - the Existing Facility Load for Scheduled Generation for each Trading Interval in the five year period determined under step 1(a) of the Relevant Level Methodology; and
  - 2. the 12 Trading Intervals occurring on separate Trading Days with the highest Existing Facility Load for Scheduled Generation for each\_12 month period in the five year period-;
- (g) the Ancillary Service report referred to in clause 3.11.11;
- (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:

- the total STEM Offer quantity;
- 2. the total STEM Bid quantity;
- 3. 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:
  - 1. the STEM Offers by Market Participant;
  - 2. the STEM Bids by Market Participant;
  - 3. the quantity bought or sold in the STEM by Market Participant; and
  - 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:
    - 1. where available, each Balancing Forecast;
    - where available, the BMO, excluding information that would identify specific Market Participants;
    - 3. where available, the Relevant Dispatch Quantity; and
    - 4. where available, the Balancing Price;
  - ii. 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
    - the Fuel Declaration, Availability Declaration and, if applicable,
       Ancillary Service Declaration made by Market Participant;
- (iB) the following LFAS summary information for each Trading Interval in each completed Trading Day in the previous 12 calendar months:
  - i. the LFAS Downwards Merit Order;

- ii. the LFAS Upwards Merit Order;
- iii. where available, the Upwards LFAS Quantity and the Downwards LFAS Quantity; and
- iv. where available, the LFAS Price;
- (iC) 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:
  - i. the values of the Balancing Price, the LFAS Price, the Backup

    Downwards LFAS Price and the Backup Upwards 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;
- (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);

. . .

(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;

. . .

- for each Trading Interval of the current Trading Month for which Bbalancing

  Pprice 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).
- (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; and
  - ii. the total Spinning Reserve;
  - 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) 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;
  - (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:

- 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 :
  - 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.
- 10.7.1. 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
- 10.8.1. 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.[Blank]

10.8.2. The IMO must set the class of confidentiality status for all Electricity Generation

CorporationVerve Energy information specified in clause 7.6A as Rule Participant

Dispatch Restricted Information with the exception of information specified by the

Electricity Generation CorporationVerve 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 for 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

- 4. 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;
- 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;
  - 2. 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; [Blank] [Blank] [Blank] Standing Balancing Data for Scheduled Generators registered as being capable of running on Non-Liquid Fuel comprising: 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 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; 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
- (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;

expressed in units of \$/MWh to a precision of \$0.01/MWh;

- 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 Dd ata comprising:
    - a Consumption Decrease Price for Peak Trading Intervals;
       and
    - 2. 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 Dd ata comprising:
  - a Consumption Increase Price for Peak Trading Intervals;
  - 2. 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; and
- xv. the short circuit capability of facility equipment.
- (j) [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.
- (k) Ffor each Registered Facility:
  - i. Reserve Capacity information including:
    - 1. the most recent Certified Reserve Capacity of the facility;
    - 2. the Capacity Credits held by the facility;
    - 3. the Reserve Capacity Obligation Quantity of the facility at 41°C (if applicable);
    - 4. the Reserve Capacity Obligation Quantity of the facility at 45°C (if applicable);

- for Interruptible Loads and Demand Side Programmes, the maximum number of times that interruption can be called during the term of the Capacity Credits;
- 6. the method to be used for determining the ambient temperature at the site of the facility (if applicable); and
- 7. for each Short Term Special Price Arrangement and Long Term Special Price Arrangement associated with the facility, the number of Capacity Credits covered, the Special Reserve Capacity Price to be applied, and the expiration date and time of the Special Price Arrangement.
- ii. Network Control Service information including:
  - the identity of any Network Operator that has entered into a Network Control Service Contract in relation to the Facility;
  - 2. the unique identifier for any Network Control Service Contract applicable to the Facility provided by a Network Operator in accordance with clause 5.3A.1(c); and
  - whether the Facility is subject to a Network Control Service Contract that requires the Facility not to be part of an aggregated Facility; and
- iii. the Facility Dispatch Tolerance; Settlement Tolerance.

# **Appendix 2: Spinning Reserve Cost Allocation**

This Appendix determines the value of Reserve\_Share(p,t) SR Share (p,t) of the Spinning Reserve service payment costs in Trading Interval t to be borne by Market Participant p.

In this Appendix the relevant Market Participant p is the Market Participant to whom a facility is registered, with the exception that in the case of unregistered generation systems serving Intermittent Loads, the relevant Market Participant p is the Market Participant to whom the Intermittent Load is registered.

The calculations in this Appendix are based on data for a set of applicable facilities (indexed by f) where this set comprises all Scheduled Generators and all Non-Scheduled Generators registered during Trading Interval t, except those Intermittent Generators exempted under clause 2.30A.2. This set also includes all unregistered generation systems serving Intermittent Loads.

For the purpose of determining the Reserve\_Share(p,t) SR Share (p,t) values, each applicable facility f has an applicable capacity associated with it for Trading Interval t.

- If facility f is an Intermittent Generator with an interval meter then this is double the MWh average interval meter reading for the Trading Month containing Trading Interval t.
- If facility f is a Scheduled Generator with an interval meter then this is double the MWh interval meter reading for Trading Interval t.
- If facility f is a Scheduled Generator that is the sum of more than one aggregated Facility, each with an interval meter and each injecting energy at an individual network connection point to the South West interconnected system, then each individual Facility is treated as an individual Scheduled Generator under Appendix 2.
- If facility f is an Electricity Generation Corporation Verve Energy
   Intermittent Generator without an interval meter then this is double the
   average monthly MWh sent out generation of that facility based on SCADA
   data over the Trading Month containing Trading Interval t.
- If facility f is an Electricity Generation Corporation Verve Energy Scheduled Generator without an interval meter or an unmetered generation system serving Intermittent Load then this is double the MWh sent out generation of that facility based on SCADA data for Trading Interval t.

The methodology makes use of the data in Table 1.

Block Number	Block Range (MW)	Block Size (MW)
1	> 200	100
2	>125 and ≤ 200	75

3	>65 and ≤ 125	60
4	>45 and ≤ 65	20
5	>10 and ≤ 45	35

Table 1: Data for Determine Reserve\_Share(p,<u>t</u>)

For each Block, indicated by block number b, in Table 1, the Reserve Block Share is:

If  $Sum(f(i \le)) > 0$ 

 $RBS(b) = [Block Size(b) / Sum(i, Block Size(i))] / Sum(f(i \le), TIS(f))$ 

If  $Sum(f(i \le)) = 0$ 

RBS(b) = 0

Where

Block Size(i) is the size of the Block with block number i listed in Table 1.

f(i≤) is the subset of applicable facilities that had applicable capacities for Trading Interval t lying within the block range of any Block with a block number value of b or less.

TIS(f) is 1 if the applicable facility f was synchronised to the SWIS during Trading Interval t, and is zero otherwise.

For each Block b in Table 1, the Reserve Generator Share is:

$$RGS(b) = Sum(i \ge, RBS(i))$$

Where

i≥ is the set of Blocks listed in Table 1 that have a block number i greater than or equal to b.

For each Market Participant p, its unadjusted share of the Spinning Reserve service payment costs for the Trading Interval is:

$$USHARE(p) = Sum(f(p), RGS(b(f)) \times TIS(f))$$

Where

f(p) is the set of applicable facilities for the Market Participant p that have applicable capacities within one of the block ranges listed in Table 1.

b(f) is the block number of the Block in Table 1 that has a block range that corresponds to the applicable capacity of the applicable facility f.

TIS(f) is 1 if the applicable facility f was synchronised to the SWIS during Trading Interval t, and is zero otherwise.

For each Market Participant p, its adjusted share of the Spinning Reserve services payment costs for Trading Interval t is:

 $\frac{\text{Reserve\_Share}(p,t)}{\text{SR\_Share}(p,t)} = \text{USHARE}(p) / \text{sum}(q, \text{USHARE}(q))$ 

Where

q is the index of the set of all Market Participants.

# Appendix 6: STEM Bid, STEM Offer and MCAP STEM Price Curve Determination

The first part of this appendix describes a process

...

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:
  - 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
    - the minimum MCAP Price Curve quantity for that price equals the value in (ii);
    - 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 =  $0.5 \times Sum[n=1 \text{ to N}, (FOL(n-1) + FOL(n)) \times (t(n) - t(n-1))/60]$ 

# **Appendix 9: Relevant Level Determination**

This Appendix presents the methodology for determining the Relevant Levels for Facilities that have applied for certification of Reserve Capacity under clause 4.11.2(b) for a given Reserve Capacity Cycle ("Candidate Facility").

For the purposes of the Relevant Level determination in this Appendix 9:

- the full operation date of a Candidate Facility for the Reserve Capacity Cycle ("Full Operation Date") is:
  - the date provided under clause 4.10.1(c)(iii)(7) or revised in accordance with clause 4.27.11A or clause 4.27.11B, where at the time the application for certification of Reserve Capacity is made the Facility, or part of the Facility (as applicable) is yet to enter service; or
  - the date most recently provided for a Reserve Capacity Cycle under clause 4.10.1(k) otherwise; and
- a Candidate Facility will be considered to be:
  - a new candidate Facility, if the five year period identified in step 1(a) of this Appendix commenced before 8:00 AM on the Full Operation Date for the Facility ("New Candidate Facility"); or
  - an existing Candidate Facility ("Existing Candidate Facility"), otherwise.

The IMO must perform the following steps to determine the Relevant Level for each Candidate Facility:

#### Determining Existing Facility Load for Scheduled Generation

#### Step 1: Identify:

- (a) the five year period ending at 8:00 AM on 1 April of Capacity Year 1 of the relevant Reserve Capacity Cycle;
- (b) any 12 month period, from 1 April to 31 March, occurring during the five year period identified in step 1(a), where the 12 Trading Intervals with the highest Existing Facility Load for Scheduled Generation in that 12 month period have not previously been determined under this Appendix 9; and
- (c) any 12 month period, from 1 April to 31 March, occurring during the five year period identified in step 1(a), where the 12 Trading Intervals with the highest Existing Facility Load for Scheduled Generation in that 12 month period have previously been determined under this Appendix 9.

- Step 2: Determine the quantity of electricity (in MWh) sent out by each Candidate Facility using Meter Data Submissions for each of the Trading Intervals in the period identified in step 1(b).
- Step 3: For each Candidate Facility, identify any Trading Intervals in the period identified in step 1(b) where the Facility:
  - (a) was owned, controlled or operated by a Market Participant other than the Electricity Generation Corporation and the Facility, other than a Facility in the Verve Energy Balancing Portfolio, was issued a directed to restrict its output under a Dispatch Instruction as provided in a schedule from System Management as notified under clause 7.13.1(c); or
  - (b) was owned, controlled or operated by the Electricity Generation Corporation the Facility, if in the Verve Energy Balancing Portfolio, and was instructed by issued an instruction from System Management to deviate from its Dispatch Plan or change its commitment or output as provided in a schedule as notified under clause 7.13.1C(d); or
  - (c) was affected by a Consequential Outage as notified by System Management to the IMO under clause 7.13.1A.
- Step 4: For each Candidate Facility and Trading Interval identified in step 3(a) use:
  - (a) the estimate provided by System Management to the IMO under clause 7.13.1(eBF); and
  - (b) the quantity determined for the Facility and Trading Interval in step 2, to estimate as the quantity of energy (in MWh) that would have been sent out by the Facility during the Trading Interval had it not complied with the a Dispatch Instruction not been issued for that during the Trading Interval.
- Step 5: For each Candidate Facility and Trading Interval identified in step 3(b) use:
  - (a) the estimate provided by System Management to the IMO under clause 7.13.1C(e); and
  - (b) the quantity determined for the Facility and Trading Interval in step 2,

to estimate the quantity of energy (in MWh) that would have been sent out by the Facility had it not complied with System Management's instruction to change its commitment or output during the Trading Interval.

- Step 6: For each Candidate Facility and Trading Interval identified in step 3(c) use:
  - (a) the schedule of Consequential Outages provided by System Management to the IMO under clause 7.13.1A;
  - (b) the quantity determined for the Facility and Trading Interval in step 2; and
  - (c) the information provided by System Management under clause 7.13.1C(a),

to estimate the quantity of energy (in MWh) that would have been sent out by the Facility had it not been affected by the notified Consequential Outage during the Trading Interval.

Step 7: Determine for each Trading Interval in each 12 month period identified in step 1(b) the Existing Facility Load for Scheduled Generation (in MWh) as:

(Total\_Generation + DSP\_Reduction + Interruptible\_Reduction + Involuntary\_Reduction) – CF\_Generation

where

Total\_Generation is the total sent out generation of all Facilities, as determined from Meter Data Submissions;

DSP\_Reduction is the total quantity by which all Demand Side Programmes reduced their consumption in response to a Dispatch Instruction, as determined under clause 6.17.6(cd)(i)(3);

Interruptible\_Reduction is the total quantity by which all Interruptible Loads reduced their consumption in accordance with the terms of an Ancillary Service Contract, as provided by System Management to the IMO under clause 7.13.1C(c);

Involuntary\_Reduction is the total quantity of energy not served due to involuntary load shedding (manual and automatic), as provided by System Management to the IMO under clause 7.13.1C(b); and

CF\_Generation is the total sent out generation of all Candidate Facilities, as determined in step 2 or estimated in steps 4, 5 or 6 as applicable.

- Step 8: Determine for each 12 month period identified in step 1(b) the 12 Trading Intervals, occurring on separate Trading Days, with the highest Existing Facility Load for Scheduled Generation.
- Step 9: Identify, for each 12 month period identified in step 1(c), the following:
  - (a) the Existing Facility Load for Scheduled Generation previously determined under this Appendix 9 for each Trading Interval in the 12 month period;
  - (b) the sent out generation (in MWh) for each Candidate Facility for each Trading Interval in the 12 month period that was used in the determination of the Existing Facility Load for Scheduled Generation for that Trading Interval; and
  - (c) the 12 Trading Intervals occurring on separate Trading Days that were previously determined to have the highest Existing Facility Load for Scheduled Generation in the 12 month period.

#### Determining New Facility Load for Scheduled Generation

- Step\_10: For each New Candidate Facility determine, for each Trading Interval in the period identified in step 1(a) that falls before 8:00AM on the Full Operation Date for the Facility, an estimate of the quantity of energy (in MWh) that would have been sent out by the Facility in the Trading Interval, if it had been in operation with the configuration proposed under clause 4.10.1(dA) in the relevant application for certification of Reserve Capacity. The estimates must reflect the estimates in the expert report provided for the Facility under clause 4.10.3, unless the IMO reasonably considers the estimates in the expert report to be inaccurate.
- Step11: For each New Candidate Facility determine, for each Trading Interval in the period identified in step 1(a), the New Facility Load for Scheduled Generation (in MWh) as:
  - (a) if the Trading Interval falls before 8:00 AM on the Full Operation Date for the Facility:

EFLSG + Actual\_CF\_Generation – Estimated\_CF\_Generation where

EFLSG is the Existing Facility Load for Scheduled Generation for the Trading Interval, determined in step 7 or identified in step 9(a) as applicable;

Actual\_CF\_Generation is the sent out generation of the New Candidate Facility for the Trading Interval, as identified in step 9(b), determined in step 2 or estimated in steps 4, 5 or 6 as applicable; and

Estimated\_CF\_Generation is the quantity determined for the New Candidate Facility and the Trading Interval in step 10;

or

- (b) the Existing Facility Load for Scheduled Generation for the Trading Interval, otherwise.
- Step 12: For each New Candidate Facility determine, for each 12 month period identified in step 1(a), the 12 Trading Intervals, occurring on separate Trading Days, with the highest New Facility Load for Scheduled Generation.

#### Determining the Facility Average Performance Level

- Step 13: For each Existing Candidate Facility, determine the 60 quantities comprising:
  - (a) the MWh quantities determined in step 2 or estimated in steps 4, 5 or 6 as applicable for each of the Trading Intervals determined in step 8, multiplied by 2 to convert to units of MW; and
  - (b) the MWh quantities determined in step 9(b) for each of the Trading Intervals identified in step 9(c), multiplied by 2 to convert to units of MW.

- Step 14: For each New Candidate Facility, determine the 60 quantities comprising:
  - (a) the MWh quantities identified in step 9(b), determined in step 2 or estimated in steps 4, 5 or 6 as applicable for each of the Trading Intervals identified in step 12 that fall after 8:00 AM on the Full Operation Date for the Facility, multiplied by 2 to convert to units of MW; and
  - (b) the MWh quantities determined in step 10 for each of the Trading Intervals identified in step 12 that fall before 8:00 AM on the Full Operation Date of the Facility, multiplied by 2 to convert to units of MW.
- Step 15: Determine the average performance level (in MW) for each Candidate Facility f ("Facility Average Performance Level") as the mean of the 60 quantities determined for Facility f in step 13 or step 14 as applicable.

#### Determine the Facility Adjustment Factor

- Step 16: Determine the variance (in MW) for each Candidate Facility f ("Facility Variance") as the variance of the MW quantities determined for Facility f in step 13 or step 14 as applicable.
- Step17: Determine the facility adjustment factor (in MW) for each Candidate Facility f ("Facility Adjustment Factor") in accordance with the following formula:

Facility Adjustment Factor = min (G x Facility Variance (f), Facility Average Performance Level (f) /3 + K x Facility Variance (f))

Where

G = K + U/Facility Average Performance Level (f)

K is determined in accordance with the following table:

Reserve Capacity Cycle	Capacity Year	K value
2012	2014/15	0.001
2013	2015/16	0.002
2014	2016/17	0.003
2015 onwards	From 2017/18 onwards	To be determined by the IMO in accordance with clause 4.11.3B.

U is determined in accordance with the following table:

Reserve Capacity Cycle	Capacity Year	U
2012	2014/15	0.211

2013	2015/16	0.422
2014	2016/17	0.635
2015 onwards	From 2017/18 onwards	To be determined by the IMO in accordance with clause 4.11.3B.

## Determining the Relevant Level for a Facility

Step 18: Determine the Relevant Level for each Candidate Facility f (in MW) in accordance with the following formula:

Relevant Level (f) = max(0, Facility Average Performance Level (f) - Facility Adjustment Factor (f))

#### Publication of information

- Step 19: Publish on the Market Web Site by 1 June of Year 1 of the relevant Reserve Capacity Cycle:
  - (a) the Trading Intervals identified in step 8; and
  - (b) the Existing Facility Load for Scheduled Generation quantities determined in step 7.

# PROPOSED AMENDMENTS TO THE GLOSSARY OF THE WHOLESALE ELECTRICITY MARKET RULES

## **23 February 2012**

Proposed balancing and load following 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 10 February 2012 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 Rule Market Participant, and means:

- (a) "Officer" as defined in Section 9 of the Corporations Act; or
- (b) "executive officer" as defined in section 3(1) of the Electricity Corporations Act; or
- (c) for a Rule Participant that is not a body corporate, a person who is legally able to bind that Rule Participant.

Available Capacity: Means, for a Trading Interval, the sent out capacity, in MW, of a Scheduled Generator or a Non-Scheduled Generator that was not subject to an Outage notified to the IMO 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).

<u>Backup Downwards LFAS Price</u>: Means the cost referred to in clause 7B.2.6 for Verve Energy providing Downwards LFAS Backup Enablement.

Backup Upwards LFAS Price: Means the cost referred to in clause 7B.2.6 for Verve Energy providing Upwards LFAS Backup Enablement.

**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) for a Market Generator other than Verve Energy
--

each of its Scheduled Generators; and

ii. each of its Non-Scheduled Generators; and

(b) each Stand Alone Facility.

Balancing Facility Requirements: Means the technical and communication criteria that a Balancing Facility, or a type of Balancing Facility, must meet, which are set out in the Market Procedure developed under clause 7A.1.6.

Balancing Final Rule Change Report: Has the meaning given in clause 1.10.1.

Balancing Forecast: Means a forecast, determined by the IMO in accordance with the Balancing Forecast Market Procedure, for a Trading Interval, of the following:

- (a) the Relevant Dispatch Quantity for the Trading Interval;
- (b) the aggregate output of all Non-Scheduled Generators which are Balancing Facilities for the Trading Interval; and
- (c) the Balancing Price for the Trading Interval. .

<u>Balancing Forecast Market Procedure</u>: Means the Market Procedure developed under <u>clause 7A.3.20.</u>

Balancing Gate Closure: For a Trading Interval means the point in time immediately before the commencement of the Trading Interval determined by the IMO under clause 7A.1.16 or 7A.1.17, as applicable.

## **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 on the Balancing Market Commencement Day to the end of the Trading Day after the end of the Balancing Market Commencement; 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.

Balancing Market: Means the market operated under Chapter 7A in which Facilities, including the Verve Energy Balancing Portfolio as a single Facility, can manage their contractual positions and meet supply and consumption deviations from contracted bilateral and STEM positions in each Trading Interval.

Balancing Market Commencement Day: Means the Trading Day determined by the IMO under clause 7A.1.2.

Balancing Market Objectives: Means the objectives listed in clause 7A.1.3.

Balancing Merit Order or BMO: 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.3.10.

# **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, at which the Market Participant is prepared to provide 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, at which the Market Participant is prepared to provide 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, at which Verve Energy is prepared to provide from the sum of all of its Sent Out Capacity for each Facility in the Verve Energy Balancing Portfolio by the end of the Trading Interval.

Balancing Portfolio Supply Curve: Means a ranking of the Balancing Price-Quantity Pairs provided for the Verve Energy Balancing Portfolio.

Balancing Quantity: Means, in respect of a Trading Interval, the quantity, if any, calculated in accordance with the Market Procedure and published under clause 7A.3.17(a).

### **Balancing Submission**: Means:

- (a) for a Balancing Facility, other than the Verve Energy Balancing Portfolio, that is:
  - i. a 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. a 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.

**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 clause 4.26.2E.

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.

<u>Constrained Off Compensation Price:</u> Has the meaning given in clause 6.17.4 and 6.17.4A.

Constrained Off Quantity: Has the meaning given in clause 6.17.4 and 6.17.4A.

Constrained Off Portfolio Quantity: Has the meaning given in clause 6.17.5A.

<u>Constrained On Compensation Price</u>: Has the meaning given in clause 6.17.3, 6.17.3A or clause 6.17.5,.

Constrained On Quantity: Has the meaning given in clause 6.17.3 and 6.17.3A.

Consumption Decrease Price: A price specified in <a href="items">items</a> (h)(vi), (i)(xA)(3) or (i)(xA)(4) of Standing-Balancing</a> 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 Non-Balancing Dispatch Merit Order for a Trading Interval for a Dispatchable Load or Demand Side Programme and in the calculation of the Non-Balancing Facility Dispatch Instruction Payment for that Dispatchable Load or Demand Side Programme for that Trading Interval, which varies. Different values apply for Peak Trading Intervals and Off-Peak Trading Intervals.

Consumption Increase Price: A price specified in <a href="items">items</a> (i)(xA)(1) or (i)(xA)(2) of Standing Balancing Data, which must be not less than the Minimum STEM Price, 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 and in the calculation of the <a href="Non-Balancing Facility">Non-Balancing Facility</a> Dispatch Instruction Payment for that Dispatchable Load for that Trading Interval, <a href="which varies">which varies</a>. 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 CorporationSynergy.

**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 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.

Dispatch Instruction Payment or (DIP): Has the meaning given in clause 6.17.6.

Dispatch Merit Order: An ordered list of Scheduled Generators and Dispatchable Loads registered by Market Participants, other than the Electricity Generation Corporation, 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.

<u>Dispatch Order:</u> 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 from the Dispatch Plan.

**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 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.

Downward Unauthorised Deviation Quantity (DUDQ (p, d, t)): The amount calculated in accordance with clause 6.17.4.

<u>Downwards LFAS Backup Enablement</u>: Means the capacity, in MW, of a Registered Facility of Verve Energy which System Management has activated under clause 7B.4.1 in a Trading Interval to compensate for a shortfall in Downwards LFAS Enablement and which has been notified to the IMO under clause 7B.4.2.

Downwards LFAS Enablement: 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.3.4(c) which is associated with that Facility or with the Verve Energy Balancing Portfolio, as applicable.

<u>Downwards LFAS Price</u>: Means the price determined under clause 7B.3.10 or clause 7B.3.12 and published under clause 7B.3.11.

<u>Downwards LFAS Quantity</u>: Means the capacity, in MW, of downwards Load Following <u>Service required by System Management for a Trading Interval.</u>

<u>Downwards Out of Merit Generation:</u> Has the meaning given in clauses 6.16A.2 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:

- 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: Means the 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 Scheduled Generator or a Non-Scheduled Generator was operating as at the end of a Trading Interval, which must equal the SOI Quantity for the 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.

**Existing Facility Load for Scheduled Generation**: Means the MWh quantity determined for a Trading Interval under step 7 of the Relevant Level Methodology.

**Ex-post Downwards LFAS Enablement:** Means the capacity, in MW, of an LFAS Facility that was activated to provide downwards LFAS at the end of a Trading Interval.

<u>Ex-post Upwards LFAS Enablement</u>: Means the capacity, in MW, of an LFAS Facility that was activated to provide upwards LFAS at the end of a 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 Dispatch 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.

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)(iii) of the Market Rules in relation to a specific Facility, as varied under clauses 2.13.6G or 2.13.6H, as applicable, 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 for future Trading Intervals in the Balancing Horizon determined by the IMO in accordance with the Balancing Forecast Market Procedure.

**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.)

**IMS:** Mean the Information Management System.

<u>IMS Interface Market Procedure</u>: Means the Market Procedure developed under clause 2.36.9.

Increased LFAS Quantity: Means the capacity, in MW, of LFAS which is the difference between the actual capacity of LFAS that was activated in a Trading Interval referred to in clause 7B.4.1(b) and the most recent LFAS Quantity published under clause 7B.3.15(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 ranked list of LFAS Submissions determined by the IMO under clause 7B.3.2.

<u>LFAS Downwards Price-Quantity Pair</u>: Means for an LFAS Facility and for the Verve <u>Energy Balancing Portfolio</u>:

- (a) the specified non-Loss Factor adjusted capacity, in MW, by which a Market

  Participant is prepared to have its LFAS Facility, or the Verve Energy Balancing

  Portfolio, as applicable, activated downwards within a Trading Interval; and
- (b) the non-Loss Factor Adjusted Price, in \$/MW, the Market Participant wants to be paid to have that capacity available within that Trading Interval.

#### 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) either:
  - i. 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
  - ii. each Stand Alone Facility for which LFAS Standing Data has been accepted by the IMO.

LFAS Facility Requirements: Means the technical and communication criteria that an LFAS Facility, or a type of LFAS Facility, must meet, which are set out in the Market Procedure in accordance with 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 6 hour period commencing at 8:00 AM, 2:00 PM, 8:00 PM or 2:00 AM, as applicable.

<u>LFAS Market</u>: 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.

<u>LFAS Merit Order</u>: 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.

<u>LFAS Price-Quantity Pair</u>: 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.

<u>LFAS Quantity Balance</u>: Means the capacity, in MW, of LFAS referred to in clause 7B.4.1(a) which an LFAS Facility has failed to provide.

**LFAS Requirement**: Means the most recent forecast LFAS Quantity published by the IMO under clause 7B.3.15(b).

LFAS Standing Data: Means the Standing Data in Appendix 1(j)(ii).

#### LFAS Submission: Means:

- (a) for an LFAS Facility that is:
  - i. 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. a Non-Scheduled Generator, for a Trading Interval or Trading Intervals,
     the Market Generator's best estimate of the capacity for the LFAS Price-Quantity Pair, in MW, the Facility is able to be activated downwards 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 ranked list of LFAS Submissions determined by the <u>IMO under clause 7B.3.1.</u>

<u>LFAS Upwards Price-Quantity Pair</u>: Means for an LFAS Facility and for the Verve Energy Balancing Portfolio:

- (a) the specified non-Loss Factor adjusted capacity, in MW, by which a Market

  Participant is prepared to have its LFAS Facility, or the Verve Energy Balancing

  Portfolio, as applicable, activated upwards within a Trading Interval;
- (b) the non-Loss Factor Adjusted Price, in \$/MW, the Market Participant wants to be paid to have that capacity available within that Trading Interval.

**Load**: Has the meaning given in clause 2.29.1(d).

**Load Following 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 Event: Means an event which causes a Facility in the Verve Energy Balancing Portfolio, which System Management has instructed to provide Load Rejection Reserve Service, to provide 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 Response Quantity: Means, for a Trading Interval, the quantity of energy reduction, in MWh, provided by a Facility as a Load Rejection Reserve Response due to a Load Rejection Reserve Event, but excluding any such contribution that occurred because System Management had instructed the Facility to provide Downwards LFAS Enablement or Downwards LFAS Backup Enablement.

**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 divided by any applicable Loss Factor for the relevant Facility but any resulting price exceeding the Price Caps, must be adjusted 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<sub>τ</sub> (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 Participant Generation Refund: Has the meaning given in clause 4.26.1.1

**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

23 February 2012 19

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<sup>&</sup>lt;sup>1</sup> The IMO notes that it has reflected the final changes approved in the Rule Change Proposal: Correction of Minor, Typographical and Manifest Errors (RC\_2011\_11). For further details refer to the following webpage: http://www.imowa.com.au/RC\_2011\_11

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 MWh. 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.

Minimum Theoretical Energy Schedule: Means the schedule determined under clause 6.15.2.

**Minister**: The Minister responsible for administering the Electricity Industry Act.

**Monitoring and Reporting Protocol**: The Market Pprocedure 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 Market Pprocedure developed by the IMO in accordance with clauses 2.15.1 and, 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.

**New Facility Load for Scheduled Generation**: Means, for a new or upgraded Facility that has applied to be assigned Certified Reserve Capacity under clause 4.11.2(b), the MWh quantity determined for a Trading Interval under step 11 of the Relevant Level Methodology for that Facility and the relevant Reserve Capacity Cycle.

Non-Balancing Dispatch Merit Order: An ordered list of Scheduled Generators, Demand Side Programmes and Dispatchable Loads registered by Market Participants, other than Verve Energy, determined by the IMO in accordance with clause 6.12.1.

Non-Balancing Facility: Means a Registered Facility that is not a Balancing Facility.

Non-Balancing Facility Dispatch Instruction Payment or DIP: Has the meaning given in clause 6.17.6.

**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 Off Generation**: Has the meaning given in clause 6.17.4(e) or 6.17.5A(e).

Non-Qualifying Constrained On Generation: Has the meaning given in clause 6.17.3(e) or 6.17.5(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 clauses 2.29.4(a) or 2.29.4(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.

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 but including LFAS Backup Enablement, to be provided by Facilities other than Facilities in the Verve Energy Balancing Portfolio.

Operational System Load Estimate: Has the meaning given in clause 6.14.4(a). Means, for a Trading Interval, System Management's estimate of the total Loss Factor adjusted MWh consumption supplied via the SWIS during that Trading Interval, which is to equal the total Loss Factor adjusted Scheduled Generator and Non-Scheduled Generator sent out energy as estimated by System Management from Scheduled Generator and Non-Scheduled Generator operational meter data and the use of state estimator systems.

**Opportunistic Maintenance**: Has the meaning given in clause 3.19.2.

Outage: Means a Forced Outage, a Planned Outage or a Consequential Outage.

**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 a quantity different to that specified for the Facility in the BMO taking into account the Ramp Rate Limit and the Relevant Dispatch Quantity in the applicable Trading Interval for the Balancing Facility.

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 6.17.5A.

# Portfolio Constrained On Quantity: Has the meaning given in clause 6.17.5.

**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).

<u>Portfolio Downwards Out of Merit Generation:</u> Means the amount calculated in accordance with clause 6.16B.2.

Portfolio Loss Factor: For each Trading Interval = sum(Facility(i) Sent Out Metered

Schedule x Loss Factor (i))/sum (Facility (i) Sent Out Metered Schedule) for all Facilities in the Verve Energy Balancing Portfolio.

Portfolio Ramp Rate Limit: Means Verve Energy's best estimate, in MW per minute, on a linear basis, of the Verve Energy Balancing Portfolio's physical ability to increase or decrease its output from the commencement of a 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).

<u>Portfolio Upwards Out of Merit Generation:</u> 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.

Pre-Amended Rules: Has the meaning given in clause 1.10.1.

Post-Amended Rules: Has the meaning given in clause 1.10.1.

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 Facility 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 to take into account:

- (a) 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.3.8(b).

**Provisional Pricing BMO**: Means the provisional Pricing BMO determined under clause 7A.3.8(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 are not confidential and may be made available to any person.

Ramp Rate Limit: Means the Market Participant's best estimate, in MW per minute, on a linear basis, of a Facility's physical ability to increase or decrease 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.3.7(b).

**Relevant Level**: Means the MW quantity determined by the IMO in accordance with the Relevant Level Methodology.

**Relevant Level Methodology**: Means the method of determining the Relevant Level specified in Appendix 9.

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 of the Reserve Capacity associated with a Facility as conducted 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:
  - i. a Scheduled Generator, the capacity provided as the Standing Data in Appendix 1(b)(iii); and
  - ii. a 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 quantities using applicable Loss Factors.

**Service Fee Settlement Amount**: Has the meaning given in clause 9.15.

**Settlement Tolerance**: The quantity 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.

Spinning Reserve Event: Means an event which causes a Facility in the Verve Energy Balancing Portfolio, which System Management has instructed to provide Spinning Reserve Service, to provide 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 additional energy, in MWh, provided by a Facility as a Spinning Reserve Response due to a Spinning Reserve Event, but excluding any such contribution that occurred because System Management had instructed the Facility to provide Upwards LFAS Enablement or Upwards LFAS Backup Enablement.

**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 system.

**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.

**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**: Means 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.

**Upwards LFAS Backup Enablement**: Means the capacity, in MW, of a Registered Facility of Verve Energy which System Management has activated under clause 7B.4.1 in a Trading

Interval to compensate for a shortfall in Upwards LFAS Enablement, and which has been notified to the IMO under clause 7B.4.2.

<u>Upwards 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 Upwards Price-Quantity Pair selected under clause 7B.3.4(b) which is associated with that Facility or with the Verve Energy Balancing Portfolio, as applicable.

<u>Upwards LFAS Price</u>: Means the price determined under clause 7B.3.9 or clause 7B.3.12 and published under clause 7B.3.11.

<u>Upwards LFAS Quantity</u>: Means the capacity, in MW, of upwards Load Following Service required by System Management for a Trading Interval.

<u>Upwards Out of Merit Generation</u>: Has the meaning given in clauses 6.16A.1 and 6.16B.1, as applicable.

Verification Test: Means a test conducted under clause 4.25A.

<u>Verve Energy</u>: Means the body corporate established by section 4(1)(a) of the Electricity Corporations Act.

<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.

**Western Power Corporation**: The body corporate established under the Electricity Corporation Act (1994) as Western Power Corporation.

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.