

ELECTRICITY INDUSTRY ACT

**ELECTRICITY INDUSTRY (WHOLESALE ELECTRICITY
MARKET) REGULATIONS 2004**

WHOLESALE ELECTRICITY MARKET RULES

**Power System Operation Procedure:
Ancillary Services**

Version history

1 April 2009	Power System Operation Procedure (Market Procedure) for Ancillary Services
11 January 2012	Amendments to the Procedure resulting from Procedure Change Proposal PPCL0022

TABLE OF CONTENTS

Relationship with Market Rules.....	3	Deleted: 4
Related documents	3	Deleted: 4
Commencement.....	3	Deleted: 4
1 Scope.....	4	Deleted: 5
2 Facility Requirements for Ancillary Services	4	Deleted: 5
2.1 Load Following Ancillary Service	4	Deleted: 5
2.2 Spinning Reserve Ancillary Service.....	5	Deleted: 6
2.3 Load Rejection Ancillary Service	7	Deleted: 8
2.4 System Restart Ancillary Service.....	8	Deleted: 9
2.5 Dispatch Support Ancillary Service.....	9	
3 Ancillary Services Planning and reporting.....	9	Deleted: 10
4 Determination of Ancillary Service Requirements.....	10	Deleted: 11
4.1 Determination of required quantities for specific Ancillary Services	11	Deleted: 12
4.2 Reassessment of Ancillary Service Requirements	12	
5 Procurement of Ancillary Services	12	Deleted: 13
5.1 Expression of Interest.....	13	Deleted: 14
5.2 Competitive Tenders.....	14	
5.3 Assessment criteria	14	Deleted: 15
6 Ancillary Services Contracts	15	
6.1 Contracts for the Supply of Ancillary Services.....	15	
6.2 Contracts for the Supply of Spinning Reserve and Load Rejection Reserve Ancillary Services.....	15	Deleted: 16
6.3 Provision of Ancillary Services without a contract	15	Deleted: 16
6.4 Settlement Data	16	

RELATIONSHIP WITH MARKET RULES

1. This Procedure has been developed in accordance with, and should be read in conjunction with, the Wholesale Electricity Market Rules (Market Rules).
2. References to particular Market Rules within the Procedure in bold and square brackets **[MR XX]** are current as at 5 December 2011. These references are included for convenience only, and are not part of this procedure.
3. This Power System Operating Procedure is subservient to the Market Rules. In the event of conflict between this Procedure and the Market Rules or any other document, the order of precedence is as set out in the Market Rules **[MR 1.5.2]**
4. This Power System Operating Procedure may include explanatory text, including quotations from the Market Rules. Such explanatory text is for information only, does not form part of the Procedure, and is italicised and contained in a rectangular box.

RELATED DOCUMENTS

1. This document is related to, and should be read in conjunction with, the following documents:
 - a. SWIS Technical Rules and Operating Standards
 - b. Power System Operation Procedure – Power System Security
 - c. Power System Operation Procedure – Dispatch
 - d. Power System Operation Procedure – Communications and control systems
 - e. Power System Operation Procedure – System Restart Overview

COMMENCEMENT

1. This market procedure replacement has effect from the date of commencement of Rules Change Proposal RC_2011_10.

1 SCOPE

1. The following ancillary services are covered by this PSOP: Spinning Reserve, Load Rejection, Black Start, and Dispatch Support. Load Following Ancillary Service is also covered to the extent of facility requirements only.

Procurement of Load Following Ancillary Service is covered by the Market Rules [Chapter 7B]. Forecasting requirements for Load Following Ancillary Service is covered in the Power System Operating Procedure, "Dispatch".

2. This Procedure documents the processes defined in the Market Rules **[MR 3.11.11, 3.11.14 and 3.11.15]** for:
 - a. determining Ancillary Service Requirements; and
 - b. preparing budget proposals for providing Ancillary Services; and
 - c. entering into Ancillary Service Contracts, including the process for conducting competitive tender processes for the awarding of such contracts.

The definitions for each of the Ancillary Services are specified in the Market Rules [MR 3.9].

2 FACILITY REQUIREMENTS FOR ANCILLARY SERVICES

System Management requires that each generating unit operating in parallel with the SWIS must have its governor enabled and governor response set at 4% droop, and have governor frequency dead band of less than 0.05 Hz. Refer to clauses 3.3.4.4 (d) and (e) of the Technical Rules

The Power System Operating Procedure 'Dispatch' contains provisions to ensure that penalties are not imposed upon Generators acting to assist in the event of a system emergency.

2.1 Load Following Ancillary Service

1. All generating units providing Load Following Ancillary Service must meet the following requirements:
 - a. The generator governing system must accept and respond to Automatic Generator Control (AGC) setpoint and handshake signals that control the output of the generator by raising or lowering the generator governor actuator to a desired level set by the AGC at a desired ramp rate; and
 - b. The generator must be equipped and configured to send signals to the AGC at least once every four seconds for each of the following quantities: generator output level; dispatch point in MW; high economic limit in MW; low economic limit in MW; high operating limit in MW; low operating limit in MW; and
 - c. The time to respond to a signal from the AGC that orders the generator output to be either raised or lowered must be five seconds or less; and

- d. The control of the generator must be selectable between 'Local Control' and 'Remote Control'. Selection of 'Local Control' must enable local control and disable remote control and selection of 'Remote Control' must enable remote control and disable local control; and
- e. The unit control dead band tolerance must be less than 2% of unit capacity; and
- f. The generator must be able to achieve a minimum raise ramp rate of at least 0.2 MW/min for each MW of offered load following service; and
- g. The generator must be able to achieve a minimum lower ramp rate of at least 0.2 MW/min for each MW of offered load following service; and
- h. For the range of output over which the offered load following would be provided, the generator must be able to achieve continuously the minimum required ramp rates specified in Parts f and g above; and
- i. The generator must not have a forced outage rate that would compromise its ability to deliver the load following service; and
- j. The generator meets the requirements of System Management's AGC interface signal protocol.

Comment [WPU1]: There are other considerations in the requirements for load following which are still being considered by System Management (e.g. maximum number of generators that can participate, minimum and maximum size of load following offering). SM are undertaking detailed designs and once complete may need to amend the PSOPs accordingly.

Comment [WPU2]: SM are undertaking detailed designs and once complete may need to amend the PSOPs accordingly.

2.2 Spinning Reserve Ancillary Service

1. System Management must ensure that the facilities scheduled to provide Spinning Reserve are collectively capable of meeting the Spinning Reserve standard over all the time periods defined in the Market Rules **[MR 3.9.3]**.

[MR 3.9.3] states that "Spinning Reserve response is measured over three time periods following a contingency event. A provider of Spinning Reserve Service must be able to ensure the relevant Facility can:

(a) respond appropriately within 6 seconds and sustain or exceed the required response for at least 60 seconds; or

(b) respond appropriately within 60 seconds and sustain or exceed the required response for at least 6 minutes; or

(c) respond appropriately within 6 minutes and sustain or exceed the required response for at least 15 minutes,

for any individual contingency event."

2. System Management will certify Generating Units to provide Spinning Reserve in one or more Classes, designated Class A, Class B and Class C, corresponding to the time periods specified in the Market Rules.

Units meeting the capability requirements may be certified to provide more than one class of Spinning Reserve.

3. Generating Units can be certified for Class A Spinning Reserve for the amount that they can increase their output within 6 seconds, and sustain for at least 60 seconds, with a maximum acceptable decay thereafter to a level not below the initial output plus 10%.

4. Units can be certified for Class B Spinning Reserve for the amount that they can increase their output within 60 seconds, and sustain for at least 6 minutes, with a maximum acceptable decay thereafter to a level not below the initial output plus 10%.
5. Units can be certified for Class C Spinning Reserve for the amount that they can increase their output within 6 minutes, and sustain for at least 15 minutes, with a maximum acceptable decay thereafter to a level not below the initial output plus 10%.
6. Generating Units certified for Class A Spinning Reserve must provide their Class A response by way of droop governor response.
7. Generating Units certified for Class B Spinning Reserve must provide their Class B response through one or more of the following:
 - a. Droop governor response; or
 - b. AGC response where appropriate.
8. Generating Units certified for Class C Spinning Reserve must provide their Class C response through one or more of the following:
 - a. Droop governor response; or
 - b. AGC response where appropriate; or
 - c. Operator action to increase power output of the Generating Unit.
9. System Management may set upper limits on ramp-up rate for specific Generating Units certified to provide Spinning Reserve, which the operators of those units must observe when acting in accordance with their Spinning Reserve obligations.

Comment [WPU3-3]: SM are undertaking detailed design and once complete may need to amend PSOPs and/or rules accordingly.

*Units capable of very high ramp rates may cause frequency to overshoot and cause over speed trips of slower-responding steam units. System Management will set requirements under Paragraph **2.2.9 above** based on a maximum allowable system-wide ramp-up rate.*

10. System Management may set additional requirements for automatic control over Generation Facilities that are not manned continuously, as a condition of certifying those facilities to provide Spinning Reserve.
11. System Management will evaluate the quantity of Spinning Reserve that a Generating Unit can be certified to provide in each class using one or more of the following methods, in order of preference:
 - a. By assessing the unit's response to actual system events based on data held by or provided to System Management, or
 - b. By assessing the unit's Standing Data, control system settings, and other relevant information.
12. System Management may define, evaluate and apply other parameters describing a unit's ability to provide Spinning Reserve and use those parameters in scheduling units to provide spinning reserve if required.

It is anticipated that scheduling spinning reserve will take account of the operating range over which the unit can provide reserve, the impact of ramping on spinning reserve response, auxiliary plant status and potentially other factors.

13. System Management may revise from time to time the quantity of Spinning Reserve that a Generating Unit is certified to provide based on the unit's response to actual system events.

2.3 Load Rejection Ancillary Service

1. System Management must ensure that the facilities scheduled to provide Load Rejection are collectively capable of meeting the Load Rejection standard over all the time periods defined in the Market Rules **[MR 3.9.3]**.

[MR 3.9.7] states that “Load Rejection Reserve response is measured over two time periods following a contingency event. A provider of Load Rejection Reserve Service must be able to ensure that the relevant Facility can:

(a) respond appropriately within 6 seconds and sustain or exceed the required response for at least 6 minutes; or

(b) respond appropriately within 60 seconds and sustain or exceed the required response for at least 60 minutes,

for any individual contingency event.”

2. System Management will certify Generating Units to provide Load Rejection reserve in one or more of the time periods specified in the Market Rules, designated Class A and Class B.
3. Generating Units can be certified for Class A Load Rejection reserve for the amount that they can decrease their output within 6 seconds, and sustain or exceed for at least 60 seconds.
4. Generating Units can be certified for Class B Load Rejection reserve for the amount that they can decrease their output within 60 seconds, and sustain or exceed for at least 60 minutes.
5. Generating Units certified for Class A Load Rejection reserve must provide their Class A response through one or more of the following:
 - a. Droop governor response; or
 - b. AGC response where appropriate.
6. Generating Units certified for Class B Load Rejection reserve must provide their Class B response through one or more of the following:
 - a. Droop governor response; or
 - b. AGC response where appropriate; or
 - c. Operator action to reduce power output of the Generating Unit, including by tripping the unit if required.

7. System Management may set additional requirements for automatic control over Generation Facilities that are not manned continuously, as a condition of certifying those facilities to provide Load Rejection reserve.
8. System Management will evaluate the quantity of Load Rejection reserve that a Generating Unit can be certified to provide in each class using one or more of the following methods, in order of preference:
 - d. By assessing the unit's response to actual system events based on data held by or provided to System Management, or
 - e. By assessing the unit's Standing Data, control system settings, and other relevant information.
9. System Management may define, evaluate and apply other parameters describing a unit's ability to provide Load Rejection Reserve and use those parameters in scheduling units to provide load rejection if required.

It is anticipated that scheduling load rejection reserve will take account of the operating range over which the unit can provide reserve, the impact of ramping on load rejection response, and potentially other factors.

10. System Management may revise from time to time the quantity of Load Rejection reserve that a Generating Unit is certified to provide based on the unit's response to actual system events.

2.4 System Restart Ancillary Service

[MR 3.9.8] states that Black Start or "System Restart Service is the ability of a Registered Facility which is a generation system to start without requiring energy to be supplied from a Network to assist in the re-energisation of the SWIS in the event of system shut-down".

For the purpose of System Restart the SWIS is divided into the following sub-networks: north metropolitan; south metropolitan, south country, north country and eastern goldfields. Presently the only sub networks from which it is possible to restore the SWIS are the north metropolitan, the south metropolitan and the north country.

1. In addition to the requirements of **[MR 3.9.8]** System Management requires that a System Restart generator must:
 - a. be capable of closing its generator output circuit breaker onto a de-energised or dead bus; and
 - b. be able to re-energise a restart path or section of the Network nominated by System Management; and
 - c. be capable of dead load pick-up of at least 15% of its maximum output; and

- d. be capable of operating in isochronous governor mode to set and control at 50 Hz the frequency of the power system it is being used to restore; and
 - e. be capable of operating in droop governor mode according to the requirements of clause 3.3.4.4 of the Technical Rules when no longer required by System Management to be the generator setting system frequency but still required to support system restoration.
2. For System Restart Generation Facilities that are not manned continuously, System Management may require a degree of automatic control over the Facility. The required level of control will be determined on a case by case basis and will be formalized between the Service Provider and System Management in a legally binding agreement.

2.5 Dispatch Support Ancillary Service

1. System Management will establish facility requirements for providers of Dispatch Support Ancillary Service on a case-by-case basis. The requirements will be specified in any applicable Expression of Interest and/or Tender documentation and in any contract established with the Service Provider.

[MR 3.9.9] states that "Dispatch Support Service is any other ancillary service that is needed to maintain Power System Security and Power System Reliability that are not covered by the other Ancillary Service categories. Dispatch Support Service is to include the service of controlling voltage levels in the SWIS, where that service is not already provided under any Arrangement for Access or Network Control Service Contract."

Dispatch support includes the use of out of merit generation, the use of location specific generation in sub-networks, and the use of generation for system voltage support.; in general ancillary services not covered elsewhere.

3 ANCILLARY SERVICES PLANNING AND REPORTING

1. System Management must **[MR 3.11.11]** produce an annual Ancillary Services Report for submission to the IMO. The report must:
 - a. Cover all Ancillary Services; and
 - b. Provide the total quantity of Ancillary Services provided in the preceding year; and
 - c. Provide an assessment of the adequacy of the Ancillary Services provided in the preceding year; and
 - d. Detail the costs (with estimates for the remainder of the year if required) of providing each bilaterally procured Ancillary Service; and

"Bilaterally procured" ancillary services excludes those services procured through a central market, such as Load Following Ancillary Service, since the IMO is better placed to specify the applicable costs from the market outcomes.

- e. Provide the total estimated quantity required of each Ancillary Service in the coming year; and
 - f. Provide details of any forecasting methodologies to be used in scheduling Ancillary Services; and
 - g. State the assumptions and circumstances that were relevant to System Management's determination of quantities; and
 - h. Provide the total estimated cost of each bilaterally procured Ancillary Service; and
 - i. Specify how each Ancillary Service is to be procured.
2. The report will cover the financial year commencing on 1 July and finishing on 30 June of the year following.
 3. Where System Management is required to amend the Ancillary Services Requirements as defined in the Market Rules, this should be carried out as soon as practical and resubmitted to the IMO.
 4. In requiring System Management to amend the Ancillary Services Requirements as defined in the Market Rules, or any other part of the Ancillary Service Performance Report, the IMO must recognise and have due regard to commitments already made by System Management through the detailed contract discussions it has had with prospective new Ancillary Service Providers, as well as contracts it has entered into.

The requirements that must be followed by the IMO and System Management when auditing the Ancillary Service Requirements are defined in the Market Rules [MR 3.11.6].

4 DETERMINATION OF ANCILLARY SERVICE REQUIREMENTS

System Management must determine the Ancillary Service Requirements in order to meet particular standards and requirements in accordance with the Market Rules [MR 3.11.1].

1. In its analysis of Ancillary Service Requirements, System Management must have regard to the conditions and situations applying during the year, including one or more of the following:
 - a. the commissioning or decommissioning of new facilities; or
 - b. the performance of facilities that give rise to the need for additional Ancillary Services; or
 - c. the risk associated with non-availability or non-performance of Ancillary Service sources; or
 - d. the variability and predictability of demand on the SWIS; or
 - e. any other factor System Management reasonably considers necessary.

Other factors that System Management must have in regard to Ancillary Service Requirements are defined in the Market Rules [MR 3.11.5].

2. System Management will use the following information in its determination of Ancillary Service Requirements:
 - a. Medium Term PASA studies; and
 - b. Equipment Limits and Security Limit information received by System Management from the IMO or Market Participants; and
 - c. Any other information that System Management considers relevant to the determination.
3. System Management may seek further information from Market Participants and Ancillary Service Providers in order to complete its determination of Ancillary Service Requirements where this information is relevant to the assessment.
4. Market Participants and Ancillary Service Providers must make every reasonable endeavour to provide this information to System Management in the form requested, and as soon as practical.

4.1 Determination of required quantities for specific Ancillary Services

1. The required quantity of Spinning Reserve will be the minimum Spinning Reserve quantity required to meet the Ancillary Services Standard for Spinning Reserve

[MR 3.10.2.] states that “the standard for Spinning Reserve Service is a level which satisfies the following principles:

(a) the level must be sufficient to cover the greater of:

- i. 70% of the total output, including Parasitic Load, of the generation unit synchronised to the SWIS with the highest total output at that time; and
- ii. the maximum load ramp expected over a period of 15 minutes;

(b) the level must include capacity utilised to meet the Load Following Service standard under clause 3.10.1, so that the capacity provided to meet the Load Following requirement is counted as providing part of the Spinning Reserve requirement;

(c) the level may be relaxed by up to 12% by System Management where it expects that the shortfall will be for a period of less than 30 minutes; and

(d) the level may be relaxed following activation of Spinning Reserve and may be relaxed by up to 100% if all reserves are exhausted and to maintain reserves would require involuntary load shedding. In such situations the levels must be fully restored as soon as practicable.”

Comment [WPU4]: SM may need to vary this requirement given the emerging demand on Load Following can at times deplete Spinning Reserve.

2. System Management will consider System Interruptible Loads (SILs) to contribute to meeting the requirements for all classes of Spinning Reserve.
3. The required quantity of Load Rejection Reserve Ancillary Service will be the minimum Load Rejection Reserve quantity required to meet the Ancillary Services Standard for Load Rejection Reserve.

4. The required quantity of Load Following Ancillary Service will be the minimum Load Following quantity required to meet the Ancillary Services Standard for Load Following Ancillary Service.

4.2 Reassessment of Ancillary Service Requirements

1. During the period over which the Ancillary Service Requirements apply, System Management must monitor the conditions giving rise to its determination.
2. The Market Rules provide for the circumstances in which System Management may reassess the level of Ancillary Service Requirements during the year in accordance with the Market Rules **[MR 3.11.3]**.
3. Where System Management considers that changes to circumstances are significant and in System Management's view may give rise to adverse effects on Power System Security or Power System Reliability, System Management must prepare a report to the IMO setting out the circumstances and making a recommendation to revise the Ancillary Service Requirements.
4. System Management may recommend to the IMO one or more actions to improve the situation described in Paragraph **4.2.3 above** of this Procedure, examples of which include one or more of the following:
 - a. contracting or arranging additional Ancillary Service; or
 - b. operating with reduced security levels; or
 - c. restricting the actions of a Market Participant or its Facility that might be giving rise to the increased need for Ancillary Services.
5. System Management must undertake the agreed course of action as soon as practical after it is approved by the IMO.

Comment [WPU5]: This may not give enough flexibility for SM to reallocate the required ancillary services during say commissioning of new generator facilities (particularly during load rejection tests), or during a period of high renewable generation fluctuations (e.g. during storm frontal activity). AEMO sculpt their FCAS (equivalent to WEM's Spinning Reserve and LFAS) according to time of day, contingency events. See Operating Procedure Frequency Control Ancillary Services SO_OP3708A version 12

5 PROCUREMENT OF ANCILLARY SERVICES

1. System Management will procure Ancillary Services in accordance with the approved Ancillary Services Report.

"Procurement" refers to all acquisition of paid-for ancillary services, whether by means of contract or through a central market.

2. System Management will obtain Ancillary Services via bilateral contract where it considers that it:
 - a. cannot meet the Ancillary Service Requirements through utilising Verve Energy facilities and currently-contracted facilities; or
 - b. can obtain a less expensive alternative to Ancillary Services provided by Verve Energy.

Verve Energy is effectively the "provider of last resort" for Spinning Reserve, Load Rejection Reserve and Load Following Ancillary Service, and has obligations under the Market Rules to ensure the Standards for those services can be maintained.

3. Each year, System Management must consider whether **Paragraph 5.2b above** of this Procedure applies and include its views within the Ancillary Services Report, prepared pursuant to the Market Rules **[MR 3.11.11]**.
4. System Management must give consideration to using a competitive tender process for the procurement, if System Management considers that doing so would minimise the cost of meeting the Ancillary Service Requirements.
5. Where System Management determines to use a competitive tender process, the following phases will apply:
 - a. the issuing of an Expression of Interest; and
 - b. the calling of competitive tenders (if required); and
 - c. the assessment of tenders according to the criteria in the Market Rules and as published during the procurement process; and
 - d. the formalising of the necessary contracts and agreements.
6. System Management may vary or otherwise not proceed with any of the phases of the competitive tender process where System Management considers that adherence to the phases of the competitive tender process would not seek to minimise the cost of meeting the Ancillary Service Requirements.

5.1 Expression of Interest

1. Where System Management determines to use a competitive tender process, it must first issue a request for an Expression of Interest for the supply of the relevant Ancillary Service.
2. The request must be published by System Management in a form and location that System Management reasonably considers will be seen by the maximum number of potential providers of the relevant Ancillary Service.
3. System Management must provide the necessary consultation and assistance where requested by respondents to assess the capability of their facilities to meet the technical specification.
4. System Management must determine from the responses to the request for Expression of Interest whether there is sufficient interest to proceed with a competitive tender. In making this determination, System Management must give due weight to:
 - a. the likelihood of the respondents meeting the technical requirements of the Ancillary Services; and
 - b. the need to minimise the cost of procuring the necessary Ancillary Service Requirements and meet the commercial criteria which the tendered services will be subject to; and
 - c. whether sufficient Ancillary Services will be available from Verve Energy and other contracted sources.

5. System Management must complete its evaluation of the responses to the Expression of Interest within a reasonable period of time.
6. System Management will prepare a short-list of parties to be invited to compete in the subsequent competitive tender, based on responses received in the Expression of Interest process.
7. System Management may publish a notice advising of its conclusion on whether to proceed with a competitive tender process following the completion of its evaluations.

5.2 Competitive Tenders

1. If a decision is made to continue with a competitive tender process, System Management must issue a request for tenders at the earliest practical date following the evaluation of responses received in the Expression of Interest process.
2. The request for tenders for the supply of one or more Ancillary Services should be provided by letter and electronic form to parties who have been short-listed during the Expression of Interest process
3. The request for tenders must be accompanied by:
 - a. a template contract covering the Ancillary Services for which tenders are sought; and
 - b. a description of the tender assessment criteria.
4. System Management shall establish and review from time to time internal processes governing the competitive tender process.

5.3 Assessment criteria

1. System Management should apply transparent criteria when evaluating a tender for supply of an Ancillary Service. To be acceptable, the minimum requirements of a proposal are that it should meet the technical requirements set out in the standard form Ancillary Service Supply Contract and the requirements specified in the Market Rules [**MR 3.11.8** and **MR 3.11.8A**].
2. The factors listed above are not exclusive, and System Management may take into account any other factor consistent with the objectives of the Market Rules.
3. System Management must document the results of its evaluations, including the reasons for accepting or rejecting each contract proposal.

6 ANCILLARY SERVICES CONTRACTS

6.1 Contracts for the Supply of Ancillary Services

1. System Management must prepare standard form contracts to be used for situations where System Management contracts to purchase Ancillary Services.
2. The contract should set out the following, as a minimum:
 - a. a technical description of the applicable Ancillary Service; and
 - b. the performance requirements of the Ancillary Service; and
 - c. testing requirements to determine performance and compliance of the service; and
 - d. the facilities from which each service will be provided; and
 - e. the process by which Ancillary Services will be made available; and
 - f. the process by which Ancillary Services will be dispatched; and
 - g. the post-event information both parties must provide; and
 - h. the prices and payment structure; and
 - i. information disclosure; and
 - j. commercial terms and conditions; and
 - k. a mechanism for resolution of disputes.

6.2 Contracts for the Supply of Spinning Reserve and Load Rejection Reserve Ancillary Services

1. In addition to the requirements in the Market Rules, Ancillary Service Providers other than Verve Energy who wish to provide Spinning Reserve and/or Load Rejection Reserve Ancillary Services must enter into a contract with System Management covering those services. The contract will cover all commercial and technical matters relevant to the supply, and be consistent with the Market Rules and this Procedure.
2. The requirements that System Management must follow where an Ancillary Service Contract has been entered into are specified in the Market Rules **[MR 3.11.10]**.

6.3 Provision of Ancillary Services without a contract

1. Under a Normal Operating State or a High Risk Operating State all Ancillary Services required by the SWIS will be provided either by the LFAS market, by Verve Energy Facilities as an obligation under the Market Rules, or by other facilities under a separate Ancillary Service contract.
2. Under an Emergency Operating State as defined within the Market Rules **[MR 3.4 and MR 3.5]** and in the Power System Operation Procedure – Power

System Security, System Management may direct a Market Generator to provide Ancillary Services to the extent necessary to return to a High Risk Operating State or Normal Operating State where that facility is physically capable of providing such services, regardless of whether that Facility has an Ancillary Service contract.

6.4 Settlement Data

1. 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 the information specified in **[MR 3.22.2]**
2. The information to be provided by System Management to the IMO for each Rule Participant holding an Ancillary Service Contract for a Trading Month is specified in **[MR 3.22.2]**, and is to be provided by the date specified in **[MR 9.16.2(a)]**