Independent Market Operator

Final Rule Change Report: Application of Spinning Reserve to Aggregated Facilities

Ref: RC_2010_06

Date: 8 October 2010

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1. INTRODUCTION

On 17 April 2010 Griffin Energy submitted a Rule Change Proposal regarding amendments to clauses 2.30.6, 2.30.7, and Appendix 2 and the proposed new clause 2.30.7A of the Wholesale Electricity Market Rules (Market Rules).

The proposal was processed using the Standard Rule Change Process, described in section 2.7 of the Market Rules. The standard process adheres to the following timelines:

2. THE RULE CHANGE PROPOSAL

2.1 Submission Details

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Date submitted:	27 April 2010
Urgency:	2-medium
Change Proposal title:	Application of Spinning Reserve to Aggregated Facilities
Market Rules affected:	

Griffin Energy considered that the proposed Amending Rules are consistent with the remaining Wholesale Market Objectives.

2.4 The Amending Rules Proposed by Griffin Energy

The amendments to the Market Rules proposed by Griffin Energy are available in the

In its late submission System Management noted that an individual Facility's operation (in respect of MW inflows and outflows) is measured at its connection point to the network. Therefore, an individual Facility is defined by its connection point to the network (usually its meter point(s)) and is required to submit an individual Resource Plan. System Management submitted that an aggregated Facility must comprise more than one meter point for the purposes of the allocation of Spinning Reserve costs as

5. THE IMO'S DRAFT DECISION

Based on the matters set out in the Draft Rule Change Report, the IMO's draft decision, in accordance with clause 2.7.7(f), was to accept the proposed amendments, as modified following the first submission period, to clauses 2.30.6, 2.30.7, 2.30.7A, 3.9.2 and Appendix 2 of the Market Rules.

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

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7. THE IMO'S FINAL ASSESSMENT

7.4 Views expressed by the Market Advisory Committee

The MAC discussed the proposal at the 10 March 2010 MAC meeting. An overview of the discussion from the MAC meeting is presented below.

Further details are available in the MAC meeting minutes available on the IMO website:

8. THE IMO'S FINAL DECISION

Based on the matters set out in this report, the IMO's final decision, in accordance with clause 2.7.8 (e), is to accept the amendment of clauses 2.30.6, 2.30.7, 2.30.7A, 3.9.2 and Appendix 2 of the Market Rules as proposed in the Rule Change Proposal as modified by the amendments outlined in section 6.2 and Appendix 4 of this report.

8.1 Reasons for the Decision

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

- will allow the Market Rules to better address Wholesale Market Objective (a);
- are consistent with the remaining Wholesale Market Objectives;
- have the general support of the MAC members;
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system must be treated as an individual Facility for the purpose of determining the Reserve Share(p,t) values under App

APPENDIX 1: FULL DETAILS OF THE PROPOSAL

In its proposal Griffin Energy notes that the Market Rules currently allow Market Participants to aggregate facilities under certain circumstances. The aggregation of facilities may lead to more efficient nomination and real time generating behaviour, as Market Participants have a more flexible arrangement for engagement with the market.

Clause 2.30.6 of the Rules ensures that "An aggregated facility which has been registered as a Facility is taken to be treated as a single Facility for the purpose of these rules."

Spinning Reserve, an Ancillary Service, is allocated under the Market Rules in accordance with Appendix 2. Allocation is heavily biased towards larger facilities, with those facilities operating at a level over 200MW incurring a greater proportion of the costs.

Griffin Energy contends that practically, an aggregated facility is the conceptual sum of two (or more) separate physical facilities. Each individual (physical) facility will have the same impact on the market with respect to the requirement for Ancillary Services whether it is aggregated or not. Griffin Energy considers that the allocation of Spinning Reserve costs to a single Facility which comprises the sum of the aggregated facilities, as currently contemplated by the Rules, may act as

APPENDIX 2: PROPOSED AMENDING RULES IN THE RULE CHANGE PROPOSAL

Griffin Energy proposed the following amendments to the Market Rules in its Rule Change Proposal (~~deleted text~~, added text):

2.30.6. If the individual Facilities forming part of an aggregated facility have their own meters, and there is no single meter for the entire aggregated facility, then the settlement meter data for the aggregated facility must be the sum of the meter readings for its component facilities. Subject to clause 2.30.7A, an ~~An~~ aggregated facility which has been registered as a Facility is taken to be treated as a single Facility for the purpose of these rules.

2.30.7. If the IMO approves the aggregation of Facilities then, subject to clause 2.30.7A, that aggregated facility must be registered as a single Facility for the purpose of these Market Rules.

2.30.7A. If the IMO approves the aggregation of Facilities of a Scheduled Generator then each individual facility in that aggregated Facility must be treated as an individual Facility for the purpose of the calculation of Spinning Reserve.

Appendix 2

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For the purpose of determining the Reserve_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 Facilities, each with an interval meter, then each individual Facility is treated as an individual Scheduled Generator under Appendix 2.
- If facility f is an Electricity Generation Corporation 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 Corpora

APPENDIX 3: THE IMO'S RESPONSE TO SUBMISSIONS RECEIVED DURING THE FIRST SUBMISSION PERIOD

The IMO's response to each of the issues identified during the first submission period is presented in the following table:

Clause/Issue	Submitter	Comment/Change Requested	IMO's response
2.30.7A	Alinta	Suggested that the IMO consider whet	

Clause/Issue	Submitter	Comment/Change Requested	IMO's response
			10MW) with one connection point to the SWIS would still be required to pay its share of Spinning Reserve Costs. Appendix 2 of the Amending Rules was clarified to reflect this.
Treatment of aggregated units for system planning	Perth Energy	It would be most efficient for the market to plan Spinning Reserve requirements around the size of individual units, rather than the size of aggregated Facilities, where those Facilities consist of two or more stand alone, independent generation units.	Refer to the above response.
Treatment of aggregated units for system planning	ERM Power	It does not appear reasonable for a Market Generator to incur higher Spinning Reserve charges for an aggregated facility where System Management would treat the reserve requirements for the facility on an individual basis.	If an aggregated facility (or two or more units comprising a part of an aggregated facility) has a single mode of connection then for the purposes of determining Spinning Reserve requirements they will be treated as one unit. This ensures that the scenario of a common mode failure is taken into account by System Management when undertaking its planning process. Appendix 2 of the Amending Rules has been clarified to reflect this.
Exemption of units smaller than 10MW	Perth Energy	Concern that generation units smaller than 10MW being exempt from funding Spinning Reserve costs is not equitable within the market and does not reflect the overarching principle of causer pays.	The rationale for allocating Spinning Reserve costs to generators in the WEM is based on the principle of economic efficiency, where costs should be allocated to those who cause them (the causer-pays principle). While the causer pays principle would ensure there is no distinction across different types of generating units, at some point the costs of treating small generating units in exactly the same way as larger units exceed the benefits. On this basis the IMO considers that generation units smaller than 10MW should remain exempt from funding Spinning Reserve costs. This conclusion is consistent with other jurisdictions and, for example, is supported in PA Consulting's memorandum titled "Summary of the Treatment of Small and Embedded Generation in the NEM"[3]. In the Australian National Electricity Market costs for Spinning Reserve are differentiated on the basis of capacity, with variations in output from units below 10MW being covered directly by Load Following Service. This is also similar to the Singapore Wholesale Electricity Market.

[3] PA Consulting Group, 21 March 2002 "Summary of Treatment of Small and Embedded Generation in the NEM".

Clause/Issue	Submitter	

Clause/Issue	Submitter	Comment/Change Requested	IMO's response
Spinning Reserve cost structure	Perth Energy	Questions whether the provision of Spinning Reserve is a truly variable-only cost. View that a detailed	

APPENDIX 4: ADDITIONAL AMENDMENTS MADE BY THE IMO FOLLOWING THE FIRST SUBMISSION PERIOD

The IMO made some amendments to the Amending Rules following its assessment of the first submission period responses. These changes are as follows (~~deleted text~~, added text):

The proposed amendment to clause 2.30.7A will clarify that aggregated Facilities will only be treated separately for the purposes of determining the Reserve_Share values in

- 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 that2t2 is2s94698(c)-71.9894(u)1997516(m)-90 1.9894(2997516(o)13

APPENDIX 5: IMO'S RESPONSE TO GRIFFIN ENERGY'S RULE CHANGE PROPOSAL

In its Draft Rule Change Report the IMO provided the following response to Griffin Energy's Rule Change Proposal.

Allocation of Costs

In its proposal Griffin Energy contended that the current methodology (the modified runway methodology) for the allocation of costs is discriminatory (Market Objective (c)). In particular, Griffin Energy noted that the current Market Rules imply that aggregating two (or more) facilities that create an aggregated facility which is larger than 200MW will incur more costs than aggregating two (or more) smaller facilities, the sum of which is less than 200MW.

The IMO did not agree that the application of the modified runway model is discriminatory. The rationale for the modified runway methodology is:

- A Market Participant only needs to pay for the Spinning Reserve that is used to cover the quantum of risk created by itself; and

- The higher the probability of a Market Participant posing a risk to the system, the higher the cost share it should be allocated.

The IMO noted that the rationale for the adoption of the modified runway approach for the allocation of costs in the South West interconnected system (SWIS) stems from the causer pays principle, where costs should be allocated to those who cause them. This is consistent with the promoting economic efficiency (Market Objective (a)). The IMO also noted that the modified runway approach has been adopted in the Singapore Wholesale Electricity Market for the allocation of Spinning R

that a Market Participant will still be required to log a Forced Outage in the event that a