
Wholesale Electricity Market Rule Change Proposal

Change Proposal No: RC_2010_33
Received date:

Change requested by Electricity Generation Corporation

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Urgency:	Standard Rule Change Process
Change Proposal title:	Cost LR
Market Rule affected:	9.9.1, 9.9.3A (new) and 9.11.1

Introduction

Clause 2.5.1 of the Wholesale Electricity Market Rules (Market Rules) provides that any person (including the Independent Market Operator (IMO)) may make a Rule Change Proposal by submitting a completed Rule Change Proposal form to the IMO.

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

Independent Market Operator
Attn: General Manager Development
PO Box 7096
Cloisters Square, Perth, WA 6850

Fax: (08) 9254 4339
Email: market.development@imowa.com.au

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

In order for the proposal to be progressed, all fields below must be completed and the proposal must explain how it will enable the Market Rules to better contribute to the achievement of the wholesale electricity market objectives. The objectives of the market are:

- (a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;
- (b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors;
- (c) to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;
- (d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system; and
- (e) to encourage the taking of measures to manage the amount of electricity used and when it is used.

Details of the proposed Market Rule Change

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

Background

Ancillary Services are used to guarantee the safe, secure and reliable production of electricity on the South West interconnected system (SWIS) by ensuring the system can adequately respond to real time changes in load and generation under a range of scenarios. Ancillary Services are used to control key technical characteristics of the power system such as frequency and voltage. In particular Ancillary Services:

- help maintain Power System Security (ability of SWIS to deliver energy within reliability standards);
- help maintain Power System Reliability (ability of the SWIS to withstand sudden disturbances including restoration in the case of blackout);
- facilitate orderly trading in electricity; and
- ensure that electricity supplies are of acceptable quality.

Ancillary Services are required to support the Wholesale Electricity market (WEM) but are not traded as part of the WEM. System Management is required to procure adequate quantities of these services, either from Electricity Generation Corporation (Verve Energy) resources (the default option) or on a contestable basis from independent providers (if they provide a lower cost option to Verve's facilities).

System Management will budget the cost of procuring Ancillary Services, with budgeted costs approved by the Economic Regulation Authority. However, System Management will

not fund Ancillary Services. Rather, the IMO recovers the costs of the Ancillary Services from Market Participants through the WEM settlement systems, and will use the revenue received to fund Ancillary Services provided by Verve Energy and any contracted Ancillary Service providers.

In the current market design Verve Energy is the default Ancillary Service provider. System Management is however able to contract with other suppliers for any of the Ancillary Services. The settlement system is designed on this basis:

- The total cost of an Ancillary Service is:
 - Proposed by the IMO or System Management; and
 - Determined by the Economic Regulation Authority (ERA) (the ERA could approve the proposal or it could amend the total cost based on its own processes).
- Verve Energy compensation is then determined as the balance from the total after deducting the total payment to other suppliers of Ancillary Services.

In the case of System Restart the total is proposed by System Management once every three years for the ERA to determine, though there is a provision for System Management to propose a revised total amount for years 2 and 3 of the 3-year review period. These revised totals are also subject to determination by the ERA.

Issue

Under the current settlement rules any third party suppliers for System Restart will be paid as set out in their contracts. These payments will then be deducted from the total determined by the ERA. In the event that, for whatever reason, the ERA sets the System Restart cost to be zero, this will currently give rise to a negative amount to be paid to Verve Energy. Effectively, that will mean that Verve Energy will be charged - actually paying the third party suppliers to supply the System Restart service. On top of making this payment Verve Energy will also be required to provide any further System Restart service in addition to the third party suppliers, as required by System Management under clause 3.11.7A, with no compensation.

Proposal

This proposal is to amend the settlement equations to remove the anomaly of Verve Energy paying third party suppliers for System Restart when the benefit goes to the market as a whole.

2. Explain the reason for the degree of urgency:

It is proposed that this Rule Change Proposal be progressed through the Standard Rule Change Process.

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

A new term ASP_Balance_Payment(i,m) has been introduced replacing the existing term ASP_Payment (i,m) in the definition for Electricity Generation Corporation AS Provider Payment(p,m). Note that ASP_Payment(i,m) continues to be used in the formula. The new term ASP_Balance_Payment(i,m) is determined in a new clause 9.9.3A

9.9.1. The Ancillary Service settlement amount for Market Participant p for Trading Month m is:

$$\begin{aligned}
 \text{ASSA}(p,m) = & \text{Electricity Generation Corporation AS Provider Payment}(p,m) \\
 & + d(p,i) \times \text{ASP_Payment}(i,m) \\
 & - \text{Load_Following_Share}(p,m) \\
 & \times (\text{Capacity_LF}(m) + \text{Availability_Cost_LF}(m)) \\
 & - \text{Reserve_Cost_Share}(p,m) \\
 & - \text{Consumption_Share}(p,m) \times \text{Cost_LRD}(m)
 \end{aligned}$$

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))
 - Sum(i ∈ I, ASP_Balance_Payment(i,m)) otherwise.

d(p,i) is 1 if ASP i corresponds to Market Participant p and zero otherwise;

ASP_Payment(i,m) is determined in accordance with clause 9.9.3;

ASP_Balance_Payment(i,m) is determined in accordance with clause 9.9.3A

...

A new clause 9.9.3A is added to define ASP_Balance_Payment(i,m) now used in clause 9.9.1. The new clause parallels the existing clause 9.9.3 except for subclause (c) for Load Rejection Reserve Service and System Restart. In this new subclause payment to Electricity Generation corporation is made non-negative.

9.9.3A. The value of ASP_Balance_Payment(i,m) for Ancillary Service Provider i in Trading Month m for determining the Ancillary Service settlement amount for the Electricity Generation Corporation is the sum of:

- (a) the sum over all Ancillary Service Contracts for Spinning Reserve of ASP_SRPayment(i,m), the payment under that contract;
- (b) the sum over all Ancillary Service Contracts for Load Following of ASP_LFPayment(i,m), the payment under that contract;

(c) for Ancillary Service Contracts for Load Rejection Reserve Service and System Restart:

Max(0, Cost_LR(m) – sum(iel, ASP_LRPayment(i,m)) – sum(iel, ASP_BSPayment(i,m))); and

(d) the sum over all Ancillary Service Contracts for Dispatch Support of ASP_DSPayment(i,m), the payment under that contract

Where

each of the terms ASP_SRPayment(i,m), ASP_LFPayment(i,m), ASP_LRPayment(i,m), ASP_BSPayment(i,m) and ASP_DSPayment(i,m) is determined in accordance with clause 9.9.4 and

Cost_LR(m) is the total Load Rejection Reserve Service and System Restart services payment costs for Trading Month m as specified by the IMO under clause 3.22.1(g)(i)

Having made the Load Rejection Reserve Service and System Restart payment to Electricity Generation Corporation non-negative, if the total amount determined by the Economic Regulation Authority is zero, the IMO will be short after paying the third party suppliers. The amendment to clause 9.11.1 is to recover this payment to third party suppliers from Market Customers through the Reconciliation Settlement Amount. Market Customers are not charged a second time in this process as with Cost_LR having a zero amount for Load Rejection Reserve Service and System Restart these services are not charged in clause 9.9.1.

9.11.1. The Reconciliation Settlement amount for Market Participant p for Trading Month m is:

$$RSA(p,m) = (-1) \times Consumption_Share(p,m) \times \sum(q \in P, d \in D, t \in T, BSA(q,d,t) + NCC(q,m) + ASSA(q,m))$$

Where

ASSA(q,m) is the Ancillary Service settlement amount for Market Participant q for Trading Month m;

...

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

This rule change addresses a fundamental value that underwrites the market and thus the Market Objectives. It is proposed that it is inequitable for a Market Participant to be required to pay for services provided by third party Market Participants when the benefit is received by

the market as a whole. In correcting this inequity the rule change should be seen as supporting the market and consistent with the Market Objectives.

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

Costs:

The IMO would require some changes to its settlement system.

Benefits:

The proposed changes will ensure Verve Energy is not required to pay for third party supplies of System Restart services for the benefit received by the market as a whole.