
Wholesale Electricity Market - Pre Market Rule Change Discussion Paper

Submitted by

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Urgency:	High
Change Proposal title:	Reserve Capacity Shortfall Refunds
Market Rule(s) affected:	4.12.1, 4.26.2, 4.26.3

Introduction

This Pre Market Rule Change Discussion Paper can be posted, faxed or emailed to:

Independent Market Operator

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The discussion paper should 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) Outline the issue concerning the existing Market Rules that is to be addressed by the proposed Market Rule change:

The current application of Reserve Capacity Shortfall calculations has a manifest error whereby a Market Participant may comply with its Reserve Capacity Obligations under MR 4.12.1 yet still be charged a Capacity Cost Refund under MR 4.26.3.

The issue arises when a facility has capacity available at 41°C that exceeds its Capacity Credit Allocation. When such a facility has a forced outage, the Capacity Shortfall Calculation (MR 4.26.2) results in the facility being charged the full quantum of the forced outage, not just the amount by which it failed to meet its obligations.

By way of an example, consider a facility that has a Maximum Generation Capacity @ 41°C of 100 MW and a Capacity Credit Allocation and Capacity Credit Obligation Quantity of only 80 MW. If the facility suffers a forced outage that reduces its available capacity @ 41°C to 85 MW, MR 3.21.4 requires the Market Participant to notify System Management of the outage (currently via SMITTS). This results in a 15 MW forced outage being passed to the IMO in accordance with MR 7.13.1(e) and a RFTO of 15 MW being logged in accordance with MR 4.26.2. This RFTO then becomes a Capacity Shortfall of not less than 15 MW, in accordance with the Reserve Capacity Shortfall formula in MR 4.26.2. Reserve Capacity Refunds are then payable on this amount despite the facility still being capable of meeting its Reserve Capacity Obligation Quantity of 80 MW.

2) Explain the reason for the degree of urgency:

A high level of urgency is requested as Market Participants are exposed to significant refunds unreasonably. It is submitted that this rule change be progressed under the fast track rule change process on the grounds that it is required, per Market Rule 2.5.9(b), to correct a manifest error.

3) Provide any proposed specific changes to particular Rules:

We are proposing a new formula to be used in MR 4.26.2 as shown below. The proposed amendment to the Capacity Shortfall calculation corrects the error by aligning the capacity shortfall calculation for the forced outage with the capacity available from the facility:

Note - For ease of understanding we have introduced some additional interim variables. We have also essentially split the equation into two separate equations, one to calculate the Stem Submission Shortfall and a second to calculate the Forced Outage Capacity Shortfall, with the resulting Capacity Shortfall being the maximum value resulting from each equation.

Capacity Shortfall:

$$SF(p,m,d,t) = \text{Max}(\text{SSSF}(p,m,d,t), \text{FOSF}(p,m,d,t)) + \text{Max}(0, (B(p,d,t) - C(p,d,t)))$$

STEM Submission Shortfall:

$$\text{SSSF}(p,m,d,t) = \text{RCOQ}(p,d,t) - A(p,d,t)$$

Forced Outage Capacity Shortfall:

$$\text{FOSF}(p,m,d,t) = \text{Max}(0, (\text{RCOQ}(p,d,t) - \text{AC}(p,d,t)))$$

$$\text{Where } \text{AC}(p,d,t) = \text{AKC}(p,d,t) - \text{RTFO}(p,d,t)$$

AC = Available Capacity

AKC = Acknowledged Capacity at 41°C (either Liquid or Non-Liquid depending on the Fuel Declaration for that facility in the STEM for that Trading Interval.

The definitions of variables A, B and C remain unchanged, ie:

$$A(p,d,t) = \text{Min}(\text{RCOQ}(p,d,t), \text{CAPA}(p,d,t))$$

$$B(p,d,t) = \text{Min}(\text{RCOQ}(p,d,t) - \text{RTFO}(p,d,t), \text{DSQ}(p,d,t));$$

$$C(p,d,t) = \text{Min}(\text{DSQ}(p,d,t), \text{MSQ}(p,d,t));$$

Appendix I, clause (k) should also be amended to include two new Standing Data variables (Acknowledged Liquid Capacity (@ 41°C) and Acknowledged Non-Liquid Capacity (@41°C)) to hold each facility's acknowledged capacities at 41°C according to fuel type.

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

Market Participants may upgrade the capacity of their facilities at any time, and this would not necessarily be geared to a Reserve Capacity Cycle. It is proposed that this capacity can then be 'acknowledged' at any time by the IMO and System Management, as and when the upgrade is completed, so that this capacity can be utilized in the energy market without any outage against this additional capacity falling subject to erroneous refunds.

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

Benefits

- Market Participants will not be exposed to clearly erroneous Capacity Cost Refunds

Costs

- Implementation of system changes to accommodate the Rule Change
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