Wholesale Electricity Market
Rule Change Proposal Submission Form

RC_2009_35 Energy Price Limits Methodology and Consultation Process

Submitted by

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Submission

1. Please provide your views on the proposal, including any objections or suggested revisions.

Background

The Market Rules require the Independent Market Operator (IMO) to review and propose revised values for the Maximum STEM Price and the Alternative Maximum STEM price annually. The Alternative Maximum STEM price is also updated on a monthly basis to reflect changes in distillate prices.

Currently, the Market Rules stipulate that in undertaking such a review the price limits should be set to incorporate a Profit Margin, to be applied to the Short Run Marginal Cost (SRMC) of operating a 40MW Open Cycle Gas Turbine (OCGT) on either of natural gas or distillate fuel respectively.

Change Proposal

The IMO has proposed to remove the reference to Profit Margin and replace this reference with the concept of incorporating an allowance for a Risk Margin instead. The IMO considers this change is necessary to make clause 6.20.7 of the Market Rules consistent with clause

2.16.9G of the Market Rules. Clause 2.16.9G requires that Market Generators bid at their reasonable expectation of SRMC.

The IMO has proposed that the Risk Margin should be calculated as being the proportion by which the 80th percentile of the probability distribution for the short run average cost exceeds the mean short run average cost for the Maximum STEM Price. For the Alternative Maximum STEM Price the proposed approach is to use the proportion between the 90th percentile and the mean short run average cost.

The IMO has also proposed to amend clause 6.20.9 and 6.20.10, and to insert the new clause 6.20.9A, to allow the IMO an additional round of consultation with interested parties following publication of a draft report on the outcome of its review of the energy price limits.

Perth Energy's Views

Perth Energy is of the view that price limits are not a natural part of any well functioning, competitive market. Perth Energy will therefore support measures which act to improve competition in the Wholesale Electricity Market (WEM) to the point where it is no longer necessary to rely on artificial limits on prices.

One reason put forward by the IMO for adopting this Rule Change Proposal is to ensure conformance with the SRMC bidding principle in clause 2.16.9G. Perth Energy notes that clause 2.16.9G was amended shortly after market commencement (CR5, 2006) by a change proposal put forward by the IMO. Before CR5 was implemented, clause 2.16.9G included the words "Where the Economic Regulation Authority determines that prices in the STEM Submission, subject to the investigation, did not reflect the reasonable expectation of the short run marginal cost of generating the relevant electricity (including a reasonable allowance for profit after allowing for revenue provided by payments for Reserve Capacity)...". When CR5 was implemented the explicit clarifying reference to the allowance for profit was removed from the Market Rules. None of the 5 respondents to the consultation on CR5, all of which were entities with generation interests, offered their unqualified support for the proposal. Perth Energy does not consider there to be an actual conflict between 2.16.9G and 6.20.7(b) in the current version of the Market Rules. Perth Energy notes that reversing the changes made by CR5 would also achieve the IMO's objective of removing any perceived conflict between 2.16.9G and 6.20.7(b).

With reference to the four alternatives put forward for how a Risk Margin could be calculated, Perth Energy sees merit in the further investigation of Option 2. This option would seek to assess the price limits using all input parameters at the most unfavourable end of their ranges. We view that the function of price limits in the marketplace is to recompense the Market Generator for the costs of operating the most costly generator on the system at times of high demand and / or low reserve margins. To ensure the most costly generator, under the most unfavourable circumstances (e.g. having to start up for one trading interval and run at minimum load before immediately turning off) can recover its costs, it would be prudent to ensure the price limits cater for the worst case scenario. To fail to allow cost recovery could

have serious consequences for the security of the system as it would discourage the generator from making the capacity available to the market.

The amendments to clause 6.20.7(b) define the new Risk Margin as being the "proportion by which the 80th percentile of the probability distribution for the short run average cost exceeds the mean short run average cost", in the case of the Maximum STEM Price. The wording is identical for the Alternative Maximum STEM price except that it makes reference to the 90th instead of the 80th percentile. Assuming that it is indeed possible to accurately construct the probability distribution for the costs, these new rules would imply that the Market Participant with the marginal generator in the South West Interconnected System (SWIS) will be out of pocket 20% of the time when it is running on natural gas and 10% of the time when it is running on distillate fuel. Consistent with our comments above, we believe it is prudent to ensure that the price limits allow for cost recovery, even in the worst case scenario and not merely "most of the time".

Perth Energy considers that the percentiles applied for the two price limits should be the same. Having a higher percentile for the alternative price limit would mean there is a lower risk of being out of pocket if the Market Generator is pursuing investment and operational strategies that favour distillate plants.

The amendments to clause 6.20.7(b) also make reference to the Risk Margin being "calculated using a statistical distribution". "Statistical distribution" is not further defined. Perth Energy would welcome some further definition and clarification of exactly how the calculation would be performed, including how to decide on an appropriate statistical distribution, and its parameters. This may perhaps be confined to a market procedure document.

With reference to 6.20.7(b)v., Perth Energy proposes that the clause be further amended to provide greater clarity, such that the marginal loss factor to be applied is defined as the lowest value marginal loss factor that applies to a generator connected to the SWIS, or alternatively, if the highest cost generator can be identified, the marginal loss factor of that generator.

Clause 6.20.7(b)i also refers to the "short run **average** cost". Perth Energy queries whether this should be a reference to "short run marginal cost". Perth Energy notes that McLennan Magasanik Associates (MMA), in their most recent report (17 September 2009), in setting out their analysis supporting the setting of the price limits, refer to both concepts. However, the Market Rules make no reference to short run average cost other than in the proposed amended 6.20.7(b). The Energy Price Limits provide a cap to the bidding behaviour of generators. The bidding behaviour is restricted by the Market Rules to reflect SRMC and it seems strange that the ultimate price caps should include a Risk Margin that is based on a calculation with basis in short run average cost rather than SRMC.

Finally, Perth Energy supports the IMO's proposal to allow for additional consultation on the price limits when the IMO considers it necessary.

2. Please provide an assessment whether the change will better facilitate the achievement of the Market Objectives.

Perth Energy is concerned that it is conceivable that the marginal generator in the SWIS will not in all instances be compensated for its marginal cost when called to generate.

We see this as being a matter of interest to financiers of new generators and that over time this may lead to a lessening of competition in the marketplace. We would view such an outcome as being detrimental to objectives (a) and (b) of the Market Objectives[1].

3. Please indicate if the proposed change will have any implications for your organisation (for example changes to your IT or business systems) and any costs involved in implementing these changes.

There will be no impact for Perth Energy.

4. Please indicate the time required for your organisation to implement the change, should it be accepted as proposed.

Perth Energy does not require any lead time to implement the change.

[1] 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.