

Wholesale Electricity Market Rule Change Proposal Submission Form

RC_2011_14 Calculation of Availability Class Quantity Correction

Submitted by

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Submission

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

Background

The Independent Market Operator (IMO) has an obligation to publish a Statement of Opportunities (SOO) annually containing information relevant to the Reserve Capacity Market. Amongst other things, the SOO must contain an Availability Curve for each of the 2nd and 3rd Capacity Years of the Long Term PASA Study Horizon.

Market Rule 4.5.12 describes some of the information that must be included in an Availability Curve, including “the forecast capacity, in MW, required for more than 24 hours per year, 48 hours per year, 72 hours per year and 96 hours per year”.

The same clause also describes how to associate capacity with each of the four Availability Classes:

- Availability Class 4 = The Reserve Capacity Target
 - less the greater of:
 - the minimum overall capacity that must be provided by (conventional) generation, and
 - the quantity of capacity that is required for more than 48 hours per year.

- Availability Class 3 = The Reserve Capacity Target
 - less the greater of:
 - the minimum overall capacity that must be provided by (conventional) generation, and
 - the quantity of capacity that is required for more than 72 hours per year
 - less the quantity of capacity associated with Availability Class 4.

- Availability Class 2 = The Reserve Capacity Target
 - less the greater of:
 - the minimum overall capacity that must be provided by (conventional) generation, and
 - the quantity of capacity that is required for more than 96 hours per year
 - less the quantity of capacity associated with Availability Classes 3 and 4.

- Availability Class 1 – The Reserve Capacity Target
 - Less the total capacity associated with Availability Classes 2, 3 and 4.

Appendix 3 of the Market Rules includes a table that specifies the minimum and maximum hours of availability that capacity offered within each of the Availability Classes must have:

- Availability Class 1: 96 hours – all hours (8,760 in a non-leap year)
- Availability Class 2: 72 – 96 hours
- Availability Class 3: 48 – 72 hours, and
- Availability Class 4: 24 – 48 hours.

System Management considers there is a mismatch between the availability requirements contained in Appendix 3 and the load duration of the capacity associated with each of the Availability Classes referred to in clause 4.5.12. For example, System Management considers that in Availability Class 4, the load may exist of up to 48 hours, yet its facility may only be available for 24 hours, and some load may therefore be unserved for up to 24 hours.

Change Proposal

On 20 January 2012 System Management submitted Rule Change Proposal RC_2011_14 “Calculation of Availability Class Quantity Correction”.

System Management proposed to correct the issue described above by amending clause 4.5.12(c)(i), (ii) and (iii) (describing Availability Classes 4, 3 and 2 respectively) by replacing a

reference to “48 hours” with “24 hours” in 4.5.12(c)(i), a reference to “72 hours” with “48 hours” in 4.5.12(c)(ii) and a reference to “96 hours” with “72 hours” in 4.5.12(c)(iii).

Perth Energy’s Views

Comments on the proposed changes

Perth Energy considers that clause 4.5.12 of the Market Rules is somewhat ambiguous and should be amended to clarify the intent of the Market Rules. However, Perth Energy does not agree with System Management’s assessment that there is a misalignment between the availability requirements listed in Appendix 3 and information about the Availability Classes in clause 4.5.12.

Clause 4.5.12 starts as follows “An Availability Curve for a Capacity Year is to contain the following information: (a) the forecast capacity, in MW, required for more than 24 hours per year, 48 hours per year, 72 hours per year and 96 hours per year”.

These four cut-offs align well with the availability requirements contained in Appendix 3 where Availability Class 4 must be available between 24 and 48 hours per year (corresponding to capacity required for more than 24 hours per year), Availability Class 3 must be available between 48 hours and 72 hours (corresponding to capacity required for more than 48 hours per year) and so on.

The current version of 4.12.5 (c)(i) defines Availability Class 4 capacity as “the capacity quantity associated with Availability Class 4 is the Reserve Capacity Target for the Capacity Year less the greater of the quantity specified under paragraph (b) and the quantity specified under paragraph (a) as being required for more than 48 hours per year”. Paragraph (b) essentially refers to capacity that can only be provided by “conventional” generation. Perth Energy considers that 4.12.5(c)(i) as currently written correctly associates Availability Class 4 with the capacity requirement that is not already served by those capacity sources that are required to be available for more than 48 hours per year.

In its rule change submission form System Management’s interpretation of clause 4.5.12(c) was that “Essentially the portion of the load that is forecast to be required for less than 48 hours per year is considered as Class 4, between 48 and 72 as Class 3, between 72 and 96 hours as Class 2, with the remainder as Class 1”.

Perth Energy considers that there is a subtle difference between System Management’s interpretation of clause 4.5.12(c) and the words used in that clause: System Management refers to “the portion of the **load** that is forecast to be required for **less than** 48 hours ...”, whereas the clause refers to “...and the **quantity** specified under paragraph (a) as being required for **more than** 48 hours per year”, where “quantity” refers to capacity rather than load.

Perth Energy’s simplified interpretation of clause 4.5.12 is that once the IMO has derived the “capacity duration curve” for a Capacity Year, and subject to meeting the requirements of 4.5.12(b), the IMO calculates the amount of MWs to be assigned to Availability Class 4 as being the total Reserve Capacity Target less the MW level corresponding to the 24th hour on the capacity duration curve. The calculations for the other Availability Classes would (simplistically) follow the same pattern.

Perth Energy asks the IMO to inform Market Participants as to how it has interpreted clause 4.5.12 to date.

Other issues identified

Perth Energy has identified a different issue with the current wording of clause 4.5.12(c)(iii) and 4.5.12(c)(iv). Perth Energy proposes that clause 4.5.12(c)(iii) be amended as follows:

- “iii. the capacity quantity associated with Availability Class 2 is:
1. the Reserve Capacity Target for the Capacity Year less the greater of the quantity specified under paragraph (b) and the quantity specified under paragraph (a) as being required for more than 96 hours per year; less
 2. the total capacity quantity associated with Availability Class 3 ~~or~~ and Availability Class 4;”

Clause 4.5.12(c)(iv) should also be similarly amended.

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

Perth Energy does not agree with System Management’s interpretation of clause 4.5.12 and does not consider there to be any inconsistency between clause 4.12.5 and Appendix 3 of the Market Rules. Perth Energy therefore does not support the rule change proposal.

Perth Energy considers that if the proposed changes were to be made inconsistencies would be introduced between clause 4.5.12 and Appendix 3. Perth Energy is also concerned that with the new wording in 4.5.12(c)(i), no capacity could be associated with Availability Class 4 as presumably the capacity that must be available for 24 hours or more would be equal to the full Reserve Capacity Target.

Perth Energy considers the proposed changes would have a marginally detrimental impact on facilitating achievement of Market Objectives¹ (a) and (d) by potentially introducing an internal inconsistency in the Market Rules and excluding demand side provision of capacity within Availability Class 4.

Perth Energy considers the further issues that it has identified (use of “or” instead of “and”) should be addressed. The proposed changes would impact positively on facilitating achievement of Market Objective (a) by clarifying the Market Rules.

Perth Energy has not identified any impacts on the remaining Market Objectives.

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.

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.

Perth Energy has not identified any significant cost or IT issues in relation to this change proposal.

3. 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 proposal.