
Wholesale Electricity Market Rule Change Proposal Submission Form

RC_2008_31 Capacity Credits for Solar Facilities

Submitted by

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Submission

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

Background

Under existing Market Rule 4.11.3A, a Market Participant may elect to have the certified reserve capacity of an intermittent generator assessed based on the *average output* of the facility during all the Trading Intervals that fell within the *last three years* up to, and including, the last Hot Season.

Rule Change Proposal

As an alternative to the calculation process under Market Rule 4.11.3A, RC_2008_31 would allow a Market Participant to elect to have the certified reserve capacity of an intermittent generator assessed based on the *output of the facility determined with 90 per cent confidence* during the 250 Trading Intervals that fell within *the last Hot Season* where demand for electricity in the South West Interconnected System (SWIS) was highest.

RC_2008_31 would largely reinstate, as an option, the certification process that was previously available to intermittent generators under the deleted Market Rule 4.11.3.

It was argued that RC_2008_31 would ensure that certified capacity for solar facilities more closely approximated the capacity that would be available from those facilities during periods of peak system demand. It was also claimed that the Market Rules currently act as a disincentive to the establishment of solar facilities within the SWIS.

Alinta's further views

Initial submission

In its initial submission, Alinta noted that whether or not RC_2008_31 would result in capacity certification for solar facilities being set at levels that more closely approximated the capacity that would be available from those facilities during periods of peak system demand had not been empirically examined.

Consequently, Alinta submitted that the IMO should undertake a technical study to assist it and Market Participants in assessing whether the amendments proposed by RC_2008_31 for the calculation of certified reserve capacity for solar facilities were consistent with the Market Objectives.

In addition, Alinta noted that the proposed new rule would be available to all intermittent facilities, not just solar facilities. Given the objective of RC_2008_31 was to ensure that certified capacity for solar facilities more closely approximated the capacity that would be available from those facilities during periods of peak system demand, it was suggested that the rule change proposal be amended to apply only to solar facilities.

The first of these two issues was addressed through a technical study undertaken by Senergy Econnect Australia (SEA). The second issue was commented on by the IMO in its Draft Rule Change Report. Alinta's further views on RC_2008_31 in light of SEA's technical study and the IMO's Draft Rule Change Report are provided below.

Technical Study

SEA's technical study considered alternative approaches for setting certified capacity for solar facilities operating in the SWIS. SEA's initial results suggested that where solar facilities did not incorporate some form of energy storage, it was likely that RC_2008_31 would not result in certified capacity for those facilities more closely approximated the capacity that would be available from those facilities during periods of peak system demand.

Further analysis by SEA, drawing on publicly available solar resource data, focused on modelled generation profiles from photovoltaic and solar facilities that incorporated energy storage. Its report states that this analysis confirmed and strengthened its initial findings that RC_2008_31 would be unlikely to ensure that certified capacity for solar facilities more closely approximated the capacity that would be available from those facilities during periods of peak system demand.

Its analysis highlights the significant year-on-year volatility in the data, and that as a result using data only from the 250 Trading Intervals that fell within *the last Hot Season* would result in wide variations in the amount of certified reserve capacity that would be assigned to an intermittent generator. As a result, Alinta considers RC_2008_31 should not be approved as currently proposed.

Limiting RC_2008_31 to solar facilities

Alinta's proposal that RC_2008_31 be amended to apply only for solar facilities was rejected in the Draft Rule Change Report on the basis that this may be detrimental to the achievement of market objective (c), which is:

“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.”

The Rule Change Report argued that amending the proposal as suggested by Alinta would treat solar facilities differently from other generators, and that this was against the intent of Market Objective (c).

At present the manner in which the Market Rules certify capacity does not *explicitly* discriminate against solar facilities. Nevertheless, it has been argued that the *effect* of current Market Rules is to discriminate against solar facilities.

On this basis, it is unclear how a *targeted* amendment to the Market Rules that seeks *only* to *rectify* the existing *implicit discrimination* against solar facilities could be considered to be against the intent of Market Objective (c).

Ultimately, the Market Rules should ensure that Facilities can deliver the amount of capacity for which they have been certified when that capacity is required by the market irrespective of generation technology. It appears conceivable that this may require that the Market Rules treat some Facilities differently to other Facilities (for example, intermittent Facilities). However, any differences would (or should) be justified on the basis that they are directed only at ensuring consistent market outcomes/obligations across generation technologies. Alinta does not consider that such differences would be inconsistent with Market Objective (c).

Alinta requests that the IMO consider these comments and address this matter further in its final rule change report. In particular, Alinta requests that the IMO clarify how it considers Market Objective (c) is to be interpreted and applied in assessing rule change proposals.

Further, given the absence of empirical evidence on how RC_2008_31 might affect the certification of capacity from other technologies (and that the intuitive logic supporting RC_2008_31 for solar facilities was found not to be supported by the empirical evidence), Alinta considers it would have been unsafe to amend the Market Rules to allow *any* Facility to adopt the calculation process proposed by RC_2008_31.

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

The Wholesale Market Objectives are as follows.

- (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.
- (e) To encourage the taking of measures to manage the amount of electricity used and when it is used.

In its initial submission, Alinta argued that no evidence had been submitted to allow an assessment to be made as to whether RC_2008_31 would amend the Market Rules in a manner that would better facilitate the Wholesale Market Objectives.

SEA reports supports the view that an alternative certification process for solar facilities might more closely approximate the capacity that would be available from those facilities during periods of peak system demand compared with the existing Market Rules. However, it does not consider that RC_2008_31 represents an improvement to the current Market Rules.

The IMO's draft decision to accept RC_2008_31 was based on its conclusion that the rule change proposal would:

- allow the Market Rules to better address Market Objectives (b) and (c);
- be consistent with Market Objectives (a), (d) and (e); and
- promote the introduction of greenhouse gas reducing technologies into the South West interconnected system.

Given SEA's finding that RC_2008_31 does not represent an improvement to the current Market Rules in terms of aligning certified capacity for solar facilities with the capacity that would be available from those facilities during periods of peak system demand, Alinta considers that:

- it is unlikely that the rule change proposal would promote the introduction of greenhouse gas reducing technologies into the SWIS (compared with the current Market Rules); and
- it is therefore not relevant whether or not the rule change proposal is consistent with the Market Objectives.

SEA's analysis suggests that RC_2008_31 is not consistent with Market Objectives (a), (c) and (d).

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.

Alinta does not consider that the changes to the Market Rules contemplated by RC_2008_31 would require it to change its IT or business systems, and hence has not identified any IT or business costs that may be associated with the rule change proposal.

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

Alinta does not consider that the changes to the Market Rules contemplated by RC_2008_31 would require it to change its IT or business systems, and hence has not identified that any specific period of time would be required to implement the changes arising from the rule change proposal.
