
Wholesale Electricity Market Rule Change Proposal Submission Form

RC_2010_22 Partial Commissioning of Intermittent Generators

Submitted by

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Submission

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

Background

Existing Market Rules

Clause 4.26.1 of the current Market Rules sets out the refunds that a Market Participant must pay to the IMO where it fails to comply with its Reserve Capacity Obligation in any Trading Interval.

Currently, the notes to the refund table, **which establishes the 'price' of the refund per MW**, indicate that intermittent facilities are only liable for refunds where they have not been 'commissioned', and goes on to state that an intermittent facility will be deemed to be commissioned when:

...the IMO determines that the facility is fully 'operational'. In this case the IMO must apply the principle that the Facility is fully operating in accordance with the basis on which the Facility applied for, and was granted, Certified Reserve Capacity, in accordance with clause 4.10 and 4.11 respectively and was subsequently assigned Capacity Credits in accordance with clause 4.14.

In contrast, and while apparently irrelevant for the purposes of clause 4.26.1, it appears that the current Market Rules implicitly permit facilities other than intermittent generators to self determine whether they are 'commissioned'.

The total cost of the refund that must be paid by facilities other than ‘commissioned’ intermittent facilities depends on the ‘**price**’ of the refund per MW (as set out in the refund table) and **quantity of the MW shortfall** in any trading interval relative to its Reserve Capacity Obligation and the Trading Interval in which the shortfall occurred.

Alinta understands that as an Intermittent Facility has a zero Reserve Capacity Obligation, logging a Forced Outage will not result in a non-zero **quantity of the MW shortfall**. That is, currently Intermittent Facilities that are commissioned are not exposed to refunds irrespective of the actual capacity provided in any Trading Interval because both the ‘**price**’ of the refund per MW is set to zero (by the refund table in clause 4.26.1) and the **quantity of the MW shortfall** is zero as an Intermittent Facility does not have a Reserve Capacity Obligation.

However, clause 4.26.1A(a)(iv) requires that intermittent facilities that have not been commissioned pay a refund based on the **full quantity** of Capacity Credits associated with the Facility (i.e. rather than on the size of the MW shortfall in any trading interval relative to the quantity of Capacity Credits associated with the Facility and the Trading Interval in which the shortfall occurred).

Amendments contemplated by RC_2010_12

RC_2010_12, which was also submitted by the IMO, ostensible deals with the introduction of a ‘Required Level’ and the return of Reserve Capacity Security.

However, RC_2010_12 would also amend the notes to the Reserve Capacity refund table in clause 4.26.1 to state that an Intermittent Facility would be liable for refunds to the IMO unless it:

1. had operated at 100 percent of its Required Level, scaled to the level of Capacity Credits specified in clause 4.20.1(a), in at least two Trading Intervals (“**Criterion 1**”); **or**
2. had provided the IMO with a report under clause 4.13.10C, where this report specifies that 100 percent of the Facility certified under clause 4.11.2(b) had been built (“**Criterion 2**”); **and**
3. was considered by the IMO to be in Commercial Operation (“**Criterion 3**”).

Similar to the current Market Rules, it would appear that RC_2010_12 would expose facilities, other than intermittent facilities meeting the above three criteria, to the same ‘**price**’ of the refund per MW (as set out in the refund table).

However, RC_2010_12 would also amend clause 4.26.1A(a)(iv) of the current Market Rules so that only an Intermittent Facility that is **not** in Commercial Operation would be exposed to a refund on the **full quantity** of its Reserve Capacity Obligation.

As a result, it would appear that RC_2010_12 could lead to the following three potential outcomes for a new Intermittent Facility.

1. The Intermittent Facility meets criterion 3 and either criteria 1 **or** 2 – Refund ‘**price**’ is set to zero. While the **refund quantity is not defined**, this is irrelevant. (“**Outcome 1**”)

2. The Intermittent Facility does not meet criterion 3 (i.e. it is irrelevant whether criteria 1 and/or 2 are met) – Refund ‘price’ is non-zero. The **refund quantity is defined** by the (amended) clause 4.1.26A(a)(iv) and results in a refund based on the **full quantity** of its Reserve Capacity Obligation. (“**Outcome 2**”)
3. The Intermittent Facility meets criterion 3, but neither criteria 1 or 2 – Refund ‘price’ is non-zero. The **refund quantity does not appear to be defined** specifically for intermittent facilities. (“**Outcome 3**”)

Further, RC_2010_12 would amend clause 4.13.10B so that in determining whether a facility was in Commercial Operation, the IMO would be required, if applicable, to have regard to:

- whether the Facility has completed an approved Commissioning Test under clause 3.21A and subsequently produced energy for at least two Trading Intervals; and
- any formal advice received from the Market Participant that it has completed an approved Commissioning Test under clause 3.21A and is commercially operational.

The proposed amended clause 4.13.10B also contemplates that the IMO may have regard to any additional information it considers relevant.

Issue

The IMO claims that the amendments to the Market Rules that would follow from RC_2010_12 could still mean that an Intermittent Facility “...*may never be deemed commissioned*”, and goes on to state that:

a 100MW wind farm (comprising of 50 2MW turbines) may have commissioned 20 turbines (40MW) but would not be deemed by the IMO to be completely commissioned and therefore required to make full refunds.

Alinta’s views

Alinta supports the apparent intent of RC_2010_22, which appears directed at ensuring that Intermittent Facilities are not exposed to full refunds where the physical quantum of the shortfall is less than the quantum of their Reserve Capacity Obligation.

However, it is not clear that the Market Rules (as amended by RC_2010_12) would actually expose intermittent facilities to full refunds where such facilities are capable of partially meeting their Reserve Capacity Obligations as claimed by the IMO.

In fact, it appears that the amendments contemplated by RC_2010_22 would actually result in the opposite outcome. That is, partially commissioned intermittent facilities would not be exposed to **any** refunds.

Commissioning versus Commercial Operation

Firstly, Alinta notes that following the amendments contemplated by RC_2010_12, whether or not an Intermittent Facility is exposed to a refund on the **full quantity** of its Reserve Capacity Obligation (i.e. whether Outcome 2 arises) depends on whether or not the IMO has determined that the Intermittent Facility is in Commercial Operation (i.e. whether Criterion 3 has been satisfied).

In this regard, RC_2010_12 would appear to provide significant flexibility to the IMO in determining whether or not a Facility is in Commercial Operation. While the definition of Commercial Operation makes reference to completion of a Commissioning Test, clause 3.21A simply indicates that a Commissioning Test is a test of the ability of a generating system to operate at different levels of output reliably – it does not require the Facility to be “...fully operating in accordance with the basis on which the Facility applied for, and was granted, Certified Reserve Capacity...”.

That is, the test following RC_2010_12 for whether an Intermittent Facility is in Commercial Operation or not is different to, and significantly less onerous than, the test for whether it is commissioned or not under the current Market Rules.

It appears open to the IMO to determine that an Intermittent Facility is in Commercial Operation despite the fact that it is not necessarily “...fully operating in accordance with the basis on which the Facility applied for, and was granted, Certified Reserve Capacity...”. The example given by the IMO with a wind farm project that was to have 100MW nameplate capacity (comprising of 50 2MW turbines) but has commissioned only 20 turbines (for a total of 40MW of installed nameplate capacity) by the start of the Capacity Year, in a case in point. While the current rules would mean that such an Intermittent Facility was not commissioned, it would nevertheless be open to the IMO to deem that it was in Commercial Operation if the Market Rules were amended as proposed by RC_2010_12.

Where the IMO is unable to determine that an Intermittent Facility is in Commercial Operation (i.e. Criterion 3 is not satisfied), Alinta considers it appropriate that the Market Participant continue to be exposed to a refund on the **full quantity** of its Reserve Capacity Obligation. It would appear that this would remain the case even if amendments to the Market Rules were made as proposed by the IMO in RC_2010_22.

Refund Price versus Refund Quantity

Secondly, as noted earlier, the refund table in clause 4.26.1 **establishes the ‘price’ of the refund per MW**, whereas the **quantity of the MW shortfall** in any trading interval relative to its Reserve Capacity Obligation appears to be determined under clause 4.26.1A.

As noted above, the intention of RC_2010_22 appears to standardise the refund obligations that apply to facilities that are in Commercial Operation. That is, to ensure that the total refund depends on the **‘price’ of the refund per MW** (which is set out in the refund table in clause 4.26.1) and **quantity of the MW shortfall** in any trading interval relative to its Reserve Capacity Obligation and the Trading Interval in which the shortfall occurred (which is determined by clause 4.26.1A).

However, Alinta notes that rather than amend the Market Rules to define the method that is to be used to determine the **quantity of the MW shortfall** in any trading interval relative to the Capacity Credits associated with an Intermittent Facility, RC_2010_22 instead proposes to ‘scale’ the **‘price’ of the refund per MW** by amending the definition of ‘Y’ for Intermittent Facilities that are in Commercial Operation but do not meet either criterion 1 or criterion 2.

It appears that the amendments contemplated by RC_2010_22 would fail to achieve their apparent intent because although the ‘**price**’ of the refund per MW is now non-zero (by virtue of the amendments to the refund table in clause 4.26.1), the **quantity of the MW shortfall** would remain at zero as an Intermittent Facility does not have a Reserve Capacity Obligation.

Consequently, RC_2010_22 would result in partially commissioned intermittent facilities not being exposed to **any** refunds.

Alinta considers it would be preferable that RC_2010_22:

- did not amend the notes to the refund table in clause 4.26.1 (as amended by RC_2010_22); but
- instead amended clause 4.26.1A(a) to insert a further subclause that defined how the **quantity of the MW shortfall** in any trading interval relative to the quantity of Capacity Credits associated with an Intermittent Facility should be calculated where the Facility is in Commercial Operation (i.e. meets Criterion 3) but does not meet either Criteria 1 or 2.

The following is modelled on the amendment developed by the IMO in RC_2010_22 and is offered as a suggestion:

ivA. if the Facility is an Intermittent Facility that is deemed to have been in Commercial Operation, for the purposes of clause 4.26.1, the value given by one of the following formulas:

(i) $RL - (2 \times Max_2)$

where:

RL is the Required Level, scaled to the level of Capacity Credits specified in clause 4.20.1(a)

Max₂ is the second highest value of the output for the Facility (MWh) achieved during a Trading Interval during the relevant Trading Month, as measured by the Meter Schedule data (sent out) that has been achieved since the date the IMO determined the Facility to be in Commercial Operation, where this value must be set equal to or greater than the Max₂ applied by the IMO for the previous Trading Month; or

(ii) $RL \times A$

RL is the Required Level, scaled to the level of Capacity Credits specified in clause 4.20.1(a)

A is the percentage detailed in the most recent report provided by Market Participant under clause 4.13.10C.

Capacity refunds versus Reserve Capacity Security Refunds

Alinta notes that although RC_2010_22 appears directed at ensuring that Intermittent Facilities are not exposed to full refunds where they may be in Commercial Operation, but not necessarily “...fully operating in accordance with the basis on which the Facility applied for, and was granted, Certified Reserve Capacity”, there would appear to remain a difference in how the Market Rules would treat intermittent facilities and all other facilities.

Specifically, while an Intermittent Facility that has not been determined by the IMO to be in Commercial Operation would be exposed to full refunds, the same provision does not apply to other facilities.

Consequently, Alinta suggests that, in addition to the amendments proposed by RC_2010_12, consideration should be given to whether or not clause 4.1.26A should be further amended by RC_2010_22 as outlined below.

- iv. if the Facility ~~is an Intermittent Facility which~~ is deemed to have not been ~~commissioned in Commercial Operation~~, for the purposes of clause 4.26.1, the number of Capacity Credits associated with the relevant ~~Intermittent~~ Facility; or

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

Market Rule 2.4.2 states that the IMO must not make Amending Rules unless it is satisfied that the Market Rules, as proposed to be amended or replaced, are consistent with the Wholesale 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.

Alinta considers that the IMO may be generally satisfied that the **intent** of RC_2010_22 is consistent with the Wholesale Market Objectives, and in any event is unlikely to be inconsistent with the Wholesale Market Objectives.

However, as outlined above, it appears that the amendments contemplated by RC_2010_22 would remove the exposure of partially commissioned intermittent facilities to **any** refunds. As a result, Alinta considers that the IMO cannot be satisfied that the **effect** of RC_2010_22 as proposed by the IMO is consistent with the Wholesale Market Objectives, and in any event is likely to be inconsistent with the Wholesale Market Objectives.

In particular, the following outcome of the amendments to the Market Rules contemplated by RC_2010_22 is likely to be inconsistent with the following Market Objectives.

- Market Objectives (a), (b), (c) and (d) because it provides a financial benefit for Intermittent Generators that are determined to be in Commercial Operation but that fail to provide the **full quantity** of Capacity Credits associated with the Facility relative to other facilities.

If the issues identified by Alinta are resolved, Alinta considers it likely that the amendments would be likely to be consistent with the Wholesale Market Objectives, and in any event re unlikely to be inconsistent with the Wholesale Market Objectives.

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.

The changes to the Market Rules contemplated by RC_2010_22 would not require Alinta to change its IT or business systems, and hence there are no IT or business costs 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.

The changes to the Market Rules contemplated by RC_2010_22 would not require Alinta to change its IT or business systems, and hence there is no specific period of time that would be required to implement the changes arising from the rule change proposal.