Wholesale Electricity Market – Pre Market Rule Change Discussion Paper

Submitted by

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Urgency:	Urgent
Change Proposal title:	**Intermittent Generator Resource Plan Exemption**
Market Rule(s) affected:	6.5.1A; 6.5.1C; 6.17.1; 6.17.5; 6.21.2; 7.10.1; 9.8.1; Glossary

Introduction

This pre market rule change discussion paper advocates the amendment of the Market Rules:

- to remove the requirement for Market Generators with only intermittent generation plant to make Resource Plan Submissions;
- to delete the Resource Plan Deviation Quantity as a component of the Balancing Settlement Amount; and
- to exempt Intermittent Generators from the requirement to comply with Resource Plans.

These changes will remove potential barriers to entry for Intermittent Generators and promote their equitable treatment within the Wholesale Electricity Market (WEM) design.

Details of the proposed Market Rule Change

1. Describe the concern with the existing Market Rules that is to be addressed by the proposed Market Rule change:

The Market Rules generally recognise Intermittent Generators differently from Scheduled Generators. In particular, their generation output is seen as intermittent as it derives from primary energy sources whose output is predominantly not controllable. However, certain rules do not recognise this important difference and impose obligations on Intermittent Generators that cannot always be met. Such obligations create uncertainty as to the committed generation output levels for Intermittent Generators and this potentially creates a barrier to entry. The removal of these extraneous obligations will promote the objectives of the market, with regard to avoiding discrimination against technologies that use renewable resources (MR 1.2.1(c)) as well as promoting efficient entry (MR 1.2.1(b)).

In particular, it is proposed that the requirement for Intermittent Generators to comply with Resource Plans be removed. To require Intermittent Generators to comply with their Resource Plans, when they have no control over their primary energy sources is clearly impractical in all circumstances. Therefore Synergy advocates that this requirement is removed.

Further, it is proposed that the requirement for Market Generators, that only have Intermittent Generators, to make Resource Plan Submissions also be removed. Resource Plans must be submitted by 12:50pm on the Scheduling Day. As a consequence, in all likelihood, these plans will not reflect an Intermittent Generator's actual generation through the Trading Day. The Market Rules recognise this and require Intermittent Generators to provide, by 10AM daily, a forecast of energy output for the 44-hour period commencing at Noon. This ensures System Management has the latest information at its disposal and with the addition of this process results in the Intermittent Generator's Resource Plan is effectively redundant. Nevertheless, it is recognised Intermittent Generators may want to make a Resource Plan Submission as a matter of record. The <u>option</u> to do so should be retained.

The balancing settlement quantities include the determination of the Resource Plan Deviation Quantity (RPDQ) which is priced at the Downward Deviation Administered Price (DDAP) and is effectively a penalty against a Market Generator. In its current formulation, as expressed in MR 6.17.5, it is difficult to decipher the objectives of the RPDQ and it is not clear what type of behaviour is being discouraged through the application of the penalty.

Synergy notes that an RPDQ only arises where a shortfall exists (difference between a Net Contract Position (NCP) and a Resource Plan (RP)) and a generator's output exceeds its resource plan. As an example, for an NCP of 100 and a RP of 80 the shortfall is 20; where actual output is less than the RP, an RPDQ is not defined. It is only when output exceeds the RP that the RPDQ is defined – in this case if output were 90 then the RPDQ would be 10. This is counterintuitive as a generator may be trying to make good the shortfall. In this case by increasing generation from 80 to 90, the generator is charged a penalty ie. 10 * DDAP. Interestingly, if actual output were 70, then no RPDQ would be defined and no penalty would apply even though a shortfall was recorded as part of the Resource Plan Submission. In it's current formulation the RPDQ creates inefficient outcomes by penalising generators in certain circumstances without any obvious benefits to market efficiency.

In consideration of these circumstances, Synergy advocates that the removal of the RPDQ would reduce uncertainty and promote market efficiency.

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2. Explain what the degree of urgency is for the Rule Change and why:

Requiring Intermittent Generators to comply with Resource Plans, when clearly it is impractical to do so, creates uncertainty about generation output levels for Intermittent Generators and hence their on-going financial viability. Removing this uncertainty reduces risk for both commissioned generators and those considering entry.

Similarly, removing the RPDQ eliminates penalties for all generators endeavouring to produce to their NCP and thereby improves market efficiencies.

Synergy notes the existence of the availability of the Fast Track process to expedite rule changes which are:

- of a minor or procedural nature;
- required to correct a manifest error;
- urgently required and is essential for the safe, effective and reliable operation of the market or the South West Interconnected System (SWIS).

Synergy contends that while the Market Rules generally recognise Intermittent Generators differently from Scheduled Generators, this is not consistent across the rules. In particular, the rules recognise that physical generation output is intermittent as it derives from primary energy sources whose output is predominantly not controllable. However, certain rules do not recognise this important difference and impose obligations on Intermittent Generators that cannot always be met. Synergy views this as a manifest error.

The rules as they currently stand also create uncertainty with regard to generation output levels for Intermittent Generators. Synergy views this uncertainty as hampering the effectiveness and reliability of the operation of the WEM and potentially creating a financial exposure for these generators.
Synergy requests that this rule change be fast tracked.

3. Provide potential specific changes to particular Rules and how the proposed Rule Change would address the concern identified at (1):

The following rule changes are proposed:

6.5.1A. Market Participants that are Market Generators<u>, except those with only Intermittent Generators,</u> or that are Market Customers with Dispatchable Load must provide the IMO with a Resource Plan Submission, <u>unless undergoing commissioning, </u>either via submitting Resource Plan Submissions or in accordance with clause 6.5.1B.

<u>6.5.1C. Market Generators with only Intermittent Generators may provide the IMO with a Resource Plan Submission, unless undergoing commissioning, either via submitting Resource Plan Submissions or in accordance with clause 6.5.1B.</u>

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6.5.4. If the IMO has not accepted a Resource Plan Submission for a Trading Day by 1 PM on the relevant Scheduling Day from a Market Participant that is required to make a Resource Plan Submission or a Market Participant covered by clause 6.5.1C, then it must prepare a default Resource Plan for that Market Participant which must include, for each Trading Interval on the Trading Day:

(a) all the Market Participant's Scheduled Generators and Non-Scheduled Generators having a scheduled output of zero;

(b) all Dispatchable Loads having a scheduled consumption of zero; and

(c) the level of the supply shortfall required pursuant to clause 6.11.1(e) equal to the total Net Contract Position.

6.17.1. The IMO must determine for each Market Participant and each Trading Interval of each Trading Day:

(a) the Authorised Deviation Quantity;

(b) the Upward Unauthorised Deviation Quantity;

(c) the Downward Unauthorised Deviation Quantity; and

(d) [Blank]~~the Resource Plan Deviation Quantity; and~~

(e) the Dispatch Instruction Payment,

in accordance with this clause 6.17.

6.17.5. [Blank] ~~The Resource Plan Deviation Quantity, RPDQ(p,d,t), for Market Participant p and Trading Interval t of Trading Day d equals:~~

~~(a) if Market Participant p is the Electricity Generation Corporation, zero; and~~

~~(b) otherwise, the lesser of zero and:~~

~~i. the Net Contract Position of Market Participant p for Trading Interval t, less the shortfall quantity specified in clause 6.11.1(e) less:~~

~~ii. the lesser of:~~

~~1. the Net Contract Position of Market Participant p for Trading Interval t;~~

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~~2. the net sum of all the Metered Schedules for Trading Interval t for the Registered Facilities and Non-Dispatchable Loads registered by Market Participant p; and~~

~~3. the net sum of all the Dispatch Schedules for Trading Interval t for the Registered Facilities and Non-Dispatchable Loads registered by Market Participant p.~~

6.21.2. The IMO must provide the following information to the Settlement System for each Trading Interval in a Trading Day:

(a) MCAP, UDAP and DDAP; and

(b) for each Market Participant:

i. the Authorised Deviation Quantity;

ii. the Upward Unauthorised Deviation Quantity;

iii. the Downward Unauthorised Deviation Quantity;

iv. [Blank] ~~the Resource Plan Deviation Quantity;~~

v. the Dispatch Instruction Payment; and

vi. any Commitment Compensation due to the Market Participant.

7.10.1. Subject to clause 7.10.2, a Market Participant other than the Electricity Generation Corporation must comply with:

(a) subject to paragraph (b), its Resource Plan except where it relates to Intermittent Generators;

(b) if a Dispatch Instruction has been issued for a Registered Facility for a Trading Interval, the most recently issued Dispatch Instruction applicable to the Registered Facility for the Trading Interval; and

(c) a direction given to the Market Participant under clauses 7.6 or 7.10.7(a).

9.8.1. The balancing settlement amount for Market Participant p for Trading Interval t of Trading Day d is:

$$BSA(p,d,t) = MCAP(d,t) \times ADQ(p,d,t) + UDAP(d,t) \times UUDQ(p,d,t) + DDAP(d,t) \times \cancel{(}DUDQ(p,d,t)\cancel{+ RPDQ(p},d,t)) + DIP(p,d,t)$$

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Where

ADQ(p,d,t), is the Authorised Deviation Quantity for Market Participant p for Trading Interval t of Trading Day d calculated in accordance with clause 6.17.2;

UUDQ(p,d,t) is the Upward Unauthorised Deviation Quantity for Market Participant p for Trading Interval t of Trading Day d calculated in accordance with clause 6.17.3;

DUDQ(p,d,t) is the Downward Unauthorised Deviation Quantity, for Market Participant p for Trading Interval t of Trading Day d calculated in accordance with clause 6.17.4;

~~RPDQ(p,d,t) is the Resource Plan Deviation Quantity for Market Participant p for Trading Interval t of Trading Day d calculated in accordance with clause 6.17.5;~~

MCAP(d,t) is the Marginal Cost Administered Price for Trading Interval t of Trading Day d calculated in accordance with clause 6.14.2;

UDAP(d,t) is the Upward Deviation Administered Price for Trading Interval t of Trading Day d calculated in accordance with clause 6.14.5;

DDAP(d,t) is the Downward Deviation Administered Price for Trading Interval t of Trading Day d calculated in accordance with clause 6.14.6;

DIP(d,t) is the Dispatch Instruction Payment for Market Participant p for Trading Interval t of Trading Day d calculated in accordance with clause 6.17.6.

Glossary

~~**Resource Plan Deviation Quantity:** The amount calculated in accordance with clause 6.17.5.~~

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

Key objectives for the WEM, as enshrined in the *Electricity Industry Act 2004 (WA)* include:

> *.."to promote the economically efficient, safe, and reliable production and supply of electricity,…including by facilitating efficient entry of new competitors; (and)…(to)….avoid discrimination in that market against particular energy options and technologies such as those that make use of renewable energy resources...."*

The WEM Rules as they are currently written impose obligations on Intermittent Generators that are impractical to comply with. Non-compliance with the rules exposes such generators to uncertainty about their level of generation output. This uncertainty unnecessarily increases the risk profile of renewable generators and creates a barrier to entry. Amendment of the rules as outlined above will promote economic efficiency, reduce barriers to entry and promote the use of renewable energy technologies.

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Deleting the Resource Plan Deviation Quantity from the balancing settlement quantities will reduce confusion about generating to Net Contract Positions thereby improving market efficiencies.

5. Outline identifiable costs and benefits of the change:

Costs

The removal of the Resource Plant Deviation Quantity will require only configuration changes to the Settlement module, which is expected to be achieved at a low cost. The proposed change to clause 6.5.4, while not having any other consequence, will ensure that no further changes will be required to the Market Systems. The rest of the proposed changes, are not expected to result in tangible cost increases.

Benefits

Intermittent Generators will not be discriminated against because of the intermittent nature of their output. This will reduce uncertainty and eliminate a barrier to entry for new renewable based Intermittent Generators. It is difficult to quantify the value of this to the WEM and to the end use customer.

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