

Wholesale Electricity Market Rule Change Proposal Submission Form

RC_2010_25 and RC_2010_37: Calculation of the Capacity Value of Intermittent Generation – Methodology 1 and 2B

Submitted by

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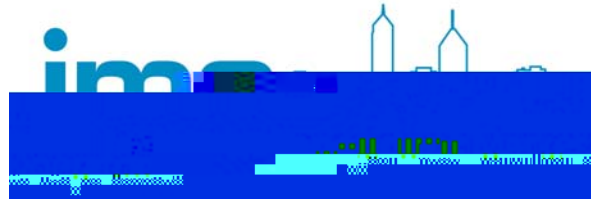
Submission

Preliminary note

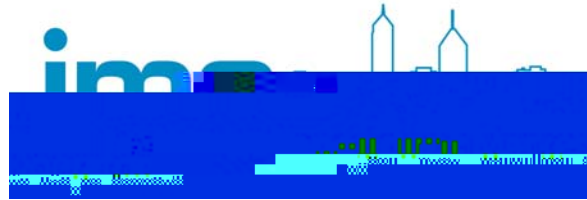
Before providing comments on the two Rule Changes, Vestas would like to comment on the use of the term “intermittent generation” to describe renewable energy technologies such as wind energy and solar energy. It is more accurate to describe these sources of electricity generation as variable rather than intermittent, which too often is used as a pejorative term by opponents of renewable energy.

For the sake of consistency with the language used in RC 25 and RC 37 we will in this submission continue to use the nomenclature of “intermittent” generation, but it should not go unremarked. The output of renewable energy might be variable but that does not mean it is unreliable or unpredictable. Certainly, modern forecasting systems used in wholesale markets such as the National Electricity Market (NEM) are able to correctly predict the generation performance of wind turbines up to 96% of the time. That level of certainty is barely short of the reliability of thermal generators using coal or gas as their fuel.

While the Wholesale Electricity Market (WEM) does not use the same wind forecasting technology as the Australian Energy Market Operator (AEMO) does for the NEM, this does not mean that wind energy should be dismissed by the IMO or System Management as a useful contributor to supply security.



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



Vestas, as well as many other current and aspiring private sector renewable energy investors in WA hold a similar view to that of MMA. Unfortunately, our views have not prevailed and Proposal 1 has now been submitted formally as RC 25 by the IMO.

It is incredibly disappointing to private sector investors that the IMO would go to the trouble of seeking expert advice and consulting with industry on this important issue, only to reject the advice and findings of the expert consultant.

Vestas understands the importance that the IMO, OOE and System Management places on the issue of security of supply. However, Vestas strongly disagrees that the RCM is the best measure to achieve this. Rather than damage the business case for renewable energy investors in WA by implementing RC 25, the goal of security of supply could be better met, for example, by revising WA's system reserve margins.

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

Vestas considers that RC 37 facilitates the Market Objectives, in most if not all cases far better than RC 25 would do. Indeed, RC 25 seems to militate against many of the Market Objectives. More detailed comments are below, listed under each of the objectives.

a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;

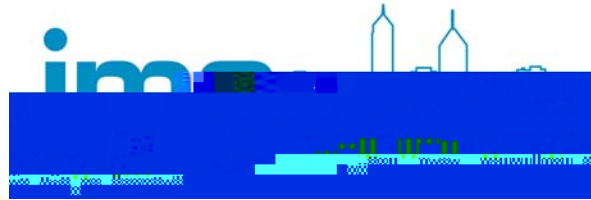
While the proponents of RC 25 clearly place a high emphasis on the *reliability* aspect of this objective, RC 25 has serious weaknesses when the *economically efficient supply* of electricity is considered.

As mentioned under Question 1 above, security of supply is an important issue, but there are other ways in which to achieve it without amending the RCM to do so at the cost of other objectives.

RC 25 might well have the aim of improving system security but it has no benefits on the issue of reliability, and a negative impact on economic efficiency. The methodology by which RC 25 values the capacity of intermittent generation has already been characterised by MMA as conservative and inaccurate. So it follows that it is unlikely to be reliable either, unless of course it is reliably inaccurate.

RC 25 ignores strong evidence that WA's intermittent resources in fact have a very good correlation with system peak demand. For example, WA's best wind periods occur during summer mornings (easterly) and afternoons (sea breeze). These findings from studies done for the IMO by MMA and Senergy Econnect appear to have been ignored.

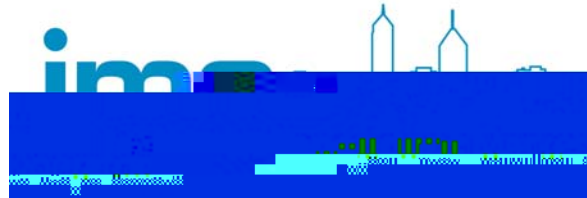
While the methodology used by RC 37 has also been characterised by MMA as conservative, its accuracy was deemed to be better than RC 25 and it is the only alternative, given that there appears to be agreement across the REGWG membership that the current RCM status quo is untenable.



On the question of *economically efficient supply* of electricity, RC 25 is unquestionably poor. It reduces the capacity payments to intermittent generators from the status quo in the RCM. This in turn discourages new investments in renewable energy generation in the SWIS and improves the relative prospects of renewable energy projects in the National Electricity Market (NEM).

As noted in Question 1 above, the major driver of renewable energy investments is the Federal Government's 20% RET. The RET is enforced by legislation that requires liable parties (predominantly electricity retailers) to source a certain percentage of their electricity supplies from renewable energy generation, evidenced by the surrender of Renewable Energy Certificates (RECs).

WA's government-owned retailer, Synergy, is a liable party under the RET legislation. At present it can meet its REC obligations by sourcing them from the spot market, or it can enter into contracts with WA-based renewable energy generators to purchase both electricity



By reducing the levels of capacity values calculated for renewable energy generators, RC 25 makes future renewable energy investments in the SWIS far less attractive when compared to projects in the NEM.

Meanwhile, although RC 37 is also less advantageous for new renewable energy generators than the present rules in the JCM, Vestas is confident that its approach would be supported by most if not all renewable energy generators.

Discouraging new entrants to the SWIS therefore discourages competition between generators, leading to less efficient outcomes and higher power prices. On that basis RC 25 fails to meet objective (b) of the WEM.

- 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**

RC 25 clearly is a form of discrimination against renewable energy generators, relative to the existing rules. Primarily it does this by reducing the valuation of their contribution to WA's needs for generation capacity at key times. Meanwhile, it does not alter the capacity payments for thermal generators.

RC 37 is a far better option, as it rewards generators for their contribution to WA's needs for capacity at the times when it is most needed. It relies upon evidence, it rewards performance and it penalises underperformance. Such a regime appears consistent with the aims of having a capacity market in the first place.

- d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system;**

Cost arguments, particularly long-term costs, are addressed in response to consideration of the impact of RC 25 and RC 37 upon objective (a) above.

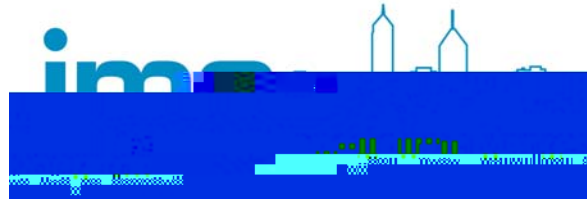
To summarise, RC 25 would impose regulatory risk on existing investors in renewable energy generators in the WEM and would deter future investors due to the prospect of a lower return as well as the regulatory risk noted above.

This deterrence of investors will reduce competition over the long term in the WEM and would reduce the ability of Synergy to hedge its REC liability and wholesale power price risk through bundled electricity/REC deals in its home market.

By contrast, RC 37 goes a long way to maintaining a prospective investment market, which will be likely to promote greater competition for new renewable energy projects and hence lower costs to consumers over the long term.

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

This objective does not appear to be greatly advanced or adversely impacted by either RC 25 or RC 37.



If anything, given that RC 25 acts as a deterrent to new investment in renewable energy generation, it may also act as a minor barrier to the early adoption of storage technologies for renewable energy generation when they begin to become available.

However, it could equally be argued that the economic inefficiency of RC 25, which will expose WA to higher retail electricity prices, may in fact provide a price signal that helps to bring forward the widespread adoption of energy efficiency technologies in homes and businesses.

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.

Vestas does not expect that there would be any compliance or implementation issues with either RC 25 or RC 37, as it is a supplier to the energy industry rather than a market participant in the strict sense.

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

See answer to Question 4 above.

Closing comments

If WA is going to retain a capacity market, then the participants in that market need to be treated with respect and not exposed to undue regulatory risk.

If it was to be adopted, RC 25 would:

- fail to advance most if not all of the Market Objectives
- expose existing investors to regulatory risk
- deter new investors in renewable energy generation
- increase costs and risks for Synergy over the long term, with a consequent increase in costs and risks for either the WA government (as owner of Synergy) or WA electricity users, depending on whether these increased costs are passed through
- not add to security of supply in any meaningful way
- leave members and observers of the REGWG wondering why they bothered to participate in a process that culminated in stakeholder views and expert evidence being later disregarded by the IMO and OOE