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Dr John Tamblyn
Chairman
Australian Energy Market Commission
PO Box H166
Australia Square
NSW 1215

Dear John,

Re: **National Electricity Rules - Request for Rule:
Semi-Dispatch of Significant Intermittent Generation**

Pacific Hydro is Australia's leading renewable energy company committed to producing electricity through proven renewable energy technologies. Around the world our 1800MW of wind and hydro projects are at various stages of development but already they are all supporting a sustainable future for the communities and countries where they're located. In Australia our growing portfolio includes wind and hydro projects as well as interests in geothermal energy. We are committed to supporting the communities in which we work both by providing job opportunities and security for farmers who are experiencing the worst effects of climate change.

Pacific Hydro is owned by an Australian company and provides an investment to over four million superannuates. While we take a long-term view of investments in Australia, the creation of a balanced approach that does not impose excessive costs on renewable generation projects is essential if we are to remain competitive in the future.

Pacific Hydro supports the principle of controlling active power flows on the transmission network in order to manage network congestion. This set of rule changes was always intended to provide NEMMCO with a management tool for network congestion that may occur as a result of wind generation on the network.

We support the Auswind submission and wish to add the following comments:

1. Semi-scheduling provisions should not apply to wind farms that are connected to voltage less than 100kV and not involved in a constraint equation.
2. The implementation requirements proposed by NEMMCO should be reduced so that only those necessary to ensure effective operation of the amended Rules, and the NEM objective of efficiency are required avoiding unnecessary costs.
3. Rule changes should only apply to prospective wind farms and wind farm operators should not be subjected to retrospective rule changes.
4. Chapter 4 Requirements

[ENCLOSURE](#)

We discuss each of these points in more detail below.

1. Semi-scheduling provisions should not apply to wind farms that are connected to voltage less than 100kV not involved in a constraint equation.

The proposed changes would require all new wind farms of 30 MW or more to participate in the central despatch through semi-scheduling, regardless of whether or not the generation will be involved in a constraint equation. There is no reason why the semi-scheduling should be applied to small distributed projects other than to force an overhead and create an entry in the dispatch systems. The information concerning the output of these smaller wind farms can be provided to the market through other methods including the data for the wind forecasting system. It is the forward information that stabilises the market response. Mandating every small project to comply with the semi-scheduling provisions in the manner proposed will not add value or provide any productive outcome other than increasing the operating costs of small wind farms. The potential impact of small wind farms on system security can be managed in other ways, for example, by the local DNSP. It should be considered that a 30MW wind farm on its annual capacity factor is likely to average between 10-12 MW.

Small wind farms in remote parts of the rural distribution networks are extremely unlikely to ever be included in transmission constraints. The proposed rules require the small projects in the low voltages areas to implement the systems for full semi-scheduling prior to commissioning without any corresponding obligation on NEMMCO to demonstrate that the systems will ever be required, (that is, to demonstrate that the wind farm has a constraint co-efficient large enough to be incorporated into a constraint equation). We recognise that a rule of this nature would require careful crafting to ensure that NEMMCO could capture the projects that do in fact contribute to a constraint.

2. Implementation requirements proposed by NEMMCO should be reduced so that only those necessary to ensure:
 - a. effective operation of the amended Rules;
 - b. the market objective of efficiency; and
 - c. unnecessary costs are avoided.

We agree that new large transmission connected wind farms will need to implement the systems outlined by NEMMCO to participate as required. However, we wish to point out the significant costs of implementing these rule changes, in particular for first projects required to comply. New wind farms, for example would be required to install and maintain the following systems in order to comply with the Rules:

- Market bidding and trading systems and related NEMMCO interfaces,
- Remote generation dispatch control systems and related NEMMCO interfaces
- Voice and operation data communication links to NEMMCO and NSP supporting the above

Over and above these requirements which have been identified by NEMMCO, the following items which are not typically included in wind farms may be required:

- Full 24x7 operational control with appropriate staff and systems;

- Market information and monitoring systems;
- Personnel to manage and monitor the market bidding and trading systems (Trader/s and IT management); and
- Training and development for all staff associated with the market operations, compliance and obligations.

Implementing and maintaining these requirements would involve significant expenditure, particularly in the setting up costs. We are not confident that the potential extent of these costs has been properly considered.

3. Transitional provisions.

We support the NEMMCO proposed transitional arrangements as they provide certainty for project investment. We also recognise the value of signed connection agreements in defining the technical performance standards and setting the connection conditions for a generation project.

We are aware, however, that applying this rule change to projects that have not yet completed a connection agreement may not be appropriate for all projects. We understand the difficulties in finalising connection agreements, and the possible undesirable circumstance that can exist of having a large investment underway without having a completed connection agreement in place. In such cases we would suggest an appeal process should be available to allow some flexibility for projects that are well-advanced but have not yet completed a connection agreement. Examples of advancement could include orders placed for long lead items. From our experience such a measure could help avoid any rule changes occurring towards the end of the negotiation process and creating unnecessary pressures on the negotiating parties.

4. Chapter 4 Requirements

We query the inclusion of semi-scheduled generating units into the Chapter 4 requirements without a full review. As the power output of a wind farm is dependent upon the wind and its performance is therefore 'subject to energy availability', it is unlikely that a wind farm would ever be directed on to despatch to the market. Wind farms during network emergencies are likely to be treated differently, with arrangements usually in place for control of the connection point circuit breaker by the Network Service Provider. We suggest this should be recognised within the context of Chapter 4.

Please contact Kate Summers of our office (03 9615 6442) if you would like to discuss any of the matters raised in this letter.

Yours sincerely

Signature withheld for web publication.

Lane Crockett
General Manager Development, Australia / Pacific

