



31 March 2006

Renewable and Distributed Generation Working Group Secretariat
Ministerial Council on Energy
GPO Box 9639
CANBERRA ACT 2601

Dear Sir/Madam

Re: Discussion Paper: Impediments to the Uptake of Renewable and Distributed Energy

The Renewable Energy Generators of Australia (REGA) represents Australia's leading renewable energy generators, project developers and equipment and service providers. REGA's members are responsible for more than 95% of the electricity generated from renewable sources in Australia each year and have around \$8b invested in existing generation infrastructure. REGA has members with major and small scale generating plant in all regions of the NEM.

It is widely accepted that human induced climate change is one of the biggest challenges currently facing us. Electricity production is a major contributor of greenhouse emissions and renewable energy provides a key part of the solution to help reduce the greenhouse intensity of electricity production. In Australia however, government support for facilitating the growth of the renewable energy industry is limited and investment is showing clear signs of stalling in the coming years.

If Australia is to reduce its carbon emissions it is imperative that the renewable energy industry is given the support it needs to grow and become competitive with other resources.

The Ministerial Council on Energy Standing Committee of Officials' (MCE SCO) commissioned review of impediments to the uptake of renewable and distributed generation in Australia is an important first step in the alleviation of some of the technical barriers to renewable energy growth. It highlights a number of the issues currently facing renewable and distributed generation, particularly small-scale installations. REGA would like to emphasise that renewable energy has large-scale applications (for example, wind, hydro and geothermal) and that barriers should be identified to the uptake of both large and small scale renewable generation.

Whilst the paper identifies a comprehensive range of impediments to the uptake of renewable energy, it is disappointing that the terms of reference have excluded the

emerging industry issues as these are critical to success or otherwise of the industry. Several examples are given of responses in place to address these issues, however there is no analysis of which of these are effective (or how that is measured), or what response measures are missing. REGA believes that the industry would benefit most from a review of impediments that is truly comprehensive.

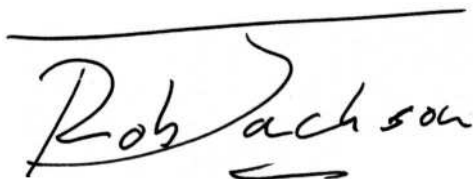
Renewable energy generation has the potential to contribute to the market best meeting the National Electricity Market (NEM) objective. Renewable generation is often located in remote areas and has the potential to provide network support and defer the need for network augmentations. Renewable generation also provides benefits to the wider community by providing employment and economic benefits to remote and rural economies.

There is a need for a regulatory regime that properly rewards innovation and provides location based signals and provides incentives for generators to build where it is of most benefit to the market and for regulated businesses to be encouraged to recognise the true value and benefits of such investments and to actively support the projects.

REGA will not be making a specific submission on the Code of Practice for Embedded Generation (COPEG), but supports the concept of such a COPEG for micro and small generation. REGA would encourage the MCE and the Utility Regulators Forum to make this a truly national document and where possible remove State specific requirements.

If you have any questions or need any clarification on the issues discussed please contact me on 0417 501 966 or email rob.jackson@rega.com.au.

Yours sincerely

A handwritten signature in black ink that reads "Rob Jackson". The signature is written in a cursive style with a horizontal line above it.

Rob Jackson
Technical Director

Response to comments sought in the paper

- 1. Noting the range of work currently underway, particularly the development of a national framework for distribution regulation by 1 January 2007 and the draft COPEG, comment is sought on the merit and form of further work to examine of distribution network price issues which could serve as input into future reviews of distribution network pricing.*

The different requirements and rules from the different jurisdictions can add significantly to the cost and complexity of building small renewable and distributed generation. The establishment of a national framework for distribution regulation will reduce these difficulties faced by developers attempting to build plant across a number of jurisdictions. In order to simplify and standardise the processes, the MCE should work to remove the specific state requirements to achieve a single national framework.

While distributed generation may be raised within the AEMC work on congestion, it is unlikely that this work will address the issues of small generators. The work is likely to concentrate on transmission congestion and the impact of generators of 30MW and above. The AEMC should be instructed to specifically look at the impacts of small generators on congestion within the distribution system. Correct signals and incentive will aid the location decisions of small generators and should lead to better utilisation of networks and defer the need for augmentation.

- 2. Noting the range of actions currently underway, comment is sought on the need and form of further work to develop solutions specific to R&DG connection cost issues. This should bear in mind MCE's requirement for a technology neutral treatment of connection costs?*

While the Rules require the connection agreement, including the costs, to be fair and reasonable, it is still difficult for a small developer to negotiate with a monopoly network supplier. This is made more acute by the information imbalance of information between the parties. While the developer of large projects may be able to employ expert consultants to assist in verifying the reasonableness of the agreement and costs, this is not usually feasible for smaller developers.

It is also noted that the nature of network augmentation means that it is not feasible to design for the exact size of each project leading to over investment by the NSP, which is recovered from the developer. There needs to be a rebate scheme to ensure that costs can be recovered from future developers and there are no free riders.

NSPs should be incentivised to come up with optimum designs that share the costs between all the beneficiaries, both generators and consumers.

It is highlighted in the Draft Code of Practice for Embedded Generation Consultation Paper that most distribution networks are designed for uni-directional flow and therefore EG proponents often face additional costs as the system requires modification to accommodate the possibility of reverse flows. To overcome this impediment to the uptake of R&DG, NPSs should be encouraged and incentivised to ensure that the initial design of new or augmented networks best accommodates the potential for future reverse power flows. The additional cost of doing this at initial design stage would be minimal and would avoid the need for more expensive modification to the network should embedded generation increase.

- 3. Noting the development of a draft COPEG, comment is sought on the need and shape of further work, possibly as input to the development of the national framework for distribution regulation.*

As highlighted in the paper, an unequal bargaining position makes it difficult for a R&DG proponent to negotiate to receive a share of all the benefits a project may bring. A requirement for transparency and a set of guidelines as outlined in the paper would help address this situation. NSPs also need to be actively encouraged to negotiate with the R&DG proponent to obtain services and performance from the generator that benefit consumers, and to pay the generator appropriately. Additional performance negotiated at the design stage may be obtainable at a small incremental cost leading to long term benefits to consumers.

- 4. Comment is sought on the need for further analysis of tariff structures for small scale on-site R&DG as input into the development of the national framework for distribution regulation.*

The current tariff structures are likely to be acting as a deterrent to further on-site generation. NSPs need to be encouraged to develop flexible arrangements that do not penalise the developers of R&DG projects.

- 5. Noting the development of a draft COPEG and review of technical standards by NEMMCO, comment is sought on the need and shape of further work by the MCE.*

The technical standards for generation as set out in the Rules are complicated and inflexible. The NEMMCO review needs to be detailed and the terms of reference need to ensure that the review is managed with consideration of the Market Objective to ensure that the standards are adequate, but do not impose unrealistic constraints on developers, the costs of which will be ultimately borne by consumers.

As currently drafted these standard apply to all generation above 5MW. This places onerous burdens on developers of R&DG projects. The detailed standards requiring NEMMCO oversight within the Rules should only apply to significant generators (greater than 30MW). All smaller plant should be negotiated between the proponent and the DNSP.

- 6. Noting the development of the draft COPEG and the national framework for distribution regulation, comment is sought on the need and shape of further possible work on the development of generalised business procedures for small and medium R&DG.*

The MCE should seek to develop standardised procedures and documentation to assist in the negotiation of agreements for small and medium R&DG. This should include both technical and financial conditions.

Larger generators should have the freedom to negotiate specific agreements.

7. Comment is sought on the need and form of future possible work by MCE or NEMMCO to improve active system management practices and emerging technologies so as to accommodate increasing levels of R&DG.

NEMMCO needs to be pro-active in ensuring that its procedures, standards and systems are able to adapt to changing technologies. In the case of the rapid increase in wind generation, NEMMCO did not move quickly enough to investigate the potential problems with network management and technical standards. This has led to confusion for developers and ad hoc requirements being placed on developers by state regulators who felt the current Rules were inadequate.

The upcoming review of technical performance standards needs to be broad ranging and ensure that future technologies are considered. The review also needs to look at the economic impact of the standards to ensure that the market delivers an optimum solution considering both the costs and benefits of the standards. Consideration should be given to further expanding the use of ancillary services as a means of encouraging additional performance at an optimum cost.

A review of international learnings is encouraged. For example, Germany, Denmark and the United States have successfully incorporated significant levels of wind generation into their mix and much can be gained from their experiences. REGA would be happy to work with MCE SCO to undertake such a review.

8. Comment is sought on the extent to which network planning information may be made more transparent and accessible.

The Statement of Opportunities and the Annual Transmission Statement provide valuable information for the proponents of large scale generation.

It would be of great value to the proponents of R&DG if similar documents were produced at a distribution and sub-transmission level. This will allow full consideration of generation solutions to local constraint issues.

9. Comment is sought on further possible work to identify mechanisms that could better enable the optimisation of shared network assets during the initial design phase as part of the development of a national transmission planning approach already being progressed through the MCE reform agenda.

As identified by the WEPWG this is a major policy issue. If the network is allowed to develop on the current basis it will lead to either a suboptimal network, or economically efficient projects being abandoned. Work is needed to review the issue and investigate mechanisms that may lead to a network that best meets the market objective.

10. Comment is sought on further work to examine the allocation of responsibility for network reliability in service standards and network pricing regulations applicable to R&DG.

Further investigation is needed into the impacts of many small R&DG across the network and how this diversification impacts on the perceived reliability standards.

Current studies have been very limited in their views. Programs such as the Federal Government's Solar Cities Program should deliver useful information in this area.

Further improved forecasting, particularly of wind will assist the market in managing much of the intermittency of some technologies.