

31st March 2006

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

Dear Sir

**Your reference: Renewable and Distributed Generation Bulletin No 3
Discussion paper on Impediments to the uptake of Renewable and
Distributed Generation and
Draft National Code of Practice for Embedded Generation
22nd February 2006**

The Centre for Distributed Energy and Power (CenDEP) is an association that is interested in promoting widespread use of, and removing barriers to, Distributed Energy (DE) in Australia. CenDEP is interested in all forms of DE namely; small generation, close to load (DG) and demand management where load is removed (DSM)

We are please to offer the following comments:

Discussion paper on Impediments to the uptake of Renewable and Distributed Generation

1. DG today, is more an economic and regulatory problem than technical. To this end, the MCE needs to address both the price at which surplus energy, generated by DG, is sold back into the system and the capital cost depreciation and financing that DE proponents face when making DE investments.

DE buy back

Net metering should be a minimum facility to ensure that rewards for exported power are the same as the price charged to import the power and this should be required of all retailers. Billing and metering technologies need to be brought up to date to facilitate this.

In line with current trials of Critical peak pricing and smart meters, market price reflective net metering should be implemented with similar buy back rates.
e.g. If a critical peak price signal for consumers is say 35c per kWh. during a high price period; then a DE unit selling surplus at that time should also be given 35c not just the non peak rate.

This mechanism would add significantly to the attractiveness of DE installations selling surplus back into the system.

MCE should consider examples from overseas (Spain) where co generation is encouraged by mandated buyback rates for surplus energy.

Capital financing

Large centralised generation expansions or new installations are usually self financed or at least financed at corporate rates with major taxation advantages on those investments. The small DE investor can only access higher commercial capital investment rates and does not have the large financial resources that State and Generation companies have.

It would be useful to if proponents of DE installations could receive some support in this area. MCE could propose that DE proponents receive special bank rates or taxation advantages (e.g. accelerated depreciation status) for development of facilities.

Location Pricing

DG appears generally higher cost than conventional sources when network benefits and other locational benefits are not considered. To assess DG on an equitable basis, there need to be consistent, cost-reflective retail buyback prices which consider the locational benefit of DE.

Initiative Funding

DE proponents would be more willing to try out solutions if more specific support funding were available from Government. The NSW Energy Savings fund is a good example of encouragement for DE, but limited to NSW.

2. Renewables and Wind farms

The document should provide a greater focus on DE (DG and DSM) rather than including the much wider subjects of Renewables and remote, large wind farm connections which we believe will distract the debate.

We believe that DG, in essence, is small scale (less than 30MW), close to the load, whether it is renewable or not is immaterial but the inclusion of renewables tends to draw the focus away from the most cost effective forms of DG; namely, reciprocating engines and gas/bio fuelled cogeneration. Renewables are already the subject of much debate and are well represented by industry; we believe that the MCE should not focus on Renewables per se.

We also believe that large scale wind farms are not DG in that they are remote, centralised generation centres, very rarely close to anything, requiring long T&D lines for connectivity. To distract the DE debate with the inclusion of this technology is misleading. Wind generation (wind farms) is already well represented and the subject of much debate

3 Metering and Network Connections

The rollout of smart meters currently planned will be too slow to support the widespread adoption of DE. It is also unclear whether these Time of Use meters will be set up to facilitate net metering (run backwards) or not. They will also need to have a multi tariff arrangement in both directions to be useful.

Metering, particularly fixed metering change over fees, and network connection charges should be standardised in terms of the fees and the technical arrangements through the NEM
To remove this barrier MCE should consider ensuring that these fees are amortised over the life of the project and are not allocated as a upfront lump sum.

4 Planning and Regulation

Information

Access to network planning information should be more transparent, particularly with regard to network planning information and the costs of network augmentation. For example; ensuring that the NSW RFP process for network augmentation is carried out throughout the NEM, rather than just in NSW with adequate time for the development of DE projects (given their sometimes 2-3 year lead times). This would allow for more logical and cost effective deployment of DE. If this was managed through the NEM, then potential DG developers could obtain information from a centralised source eg NEM website, rather than having to check advertisements or websites for various network companies.

We have seen the maps of demand and constraints developed by SEDA/DEUS to indicate "hot spots" in the NSW electricity supply network, which would assist greatly with the identification of opportunities and the planning and approvals process if they were made available in other jurisdictions.

We are of the opinion that some form of incentive, rather than regulation, for inclusion of DG in network planning solutions would be most helpful.

Standard Contracts

A standard form contract for DE between host sites and developers/proponents, similar to that for Energy Performance Contracts (AEPCA), would assist in this regard in improving the transparency between all parties

A standard network connection agreement, which includes technical/safety and any operational issues, for host sites/developers/proponents and network organisations should be developed.

A standard form of Retail contract should also be developed to ensure that DG proponents are not disadvantaged with different retailers and to address the buy back issues discussed above.

System Reliability

CenDEP challenges the assertion that introduction of DG in the network can potentially reduce system reliability. The concept of islanding and graceful degradation is improved by widespread DG deployment and DE can help to prevent single point catastrophic failures. The USA sees DG as a means of ensuring system reliability and security. In Australia this may not be the risk of sabotage, but more the increased frequency and severity of storms and severe weather events when much of the electricity supply infrastructure is above ground and connected by long thin lines.

Draft National Code of Practice for Embedded Generation

We have already commented on this document in our letter of the 27th October 2005.

We trust that our input is constructive and assists the MCE in identifying the key issues for DE in Australia. We firmly believe that more could be done with DE to the benefit of all.

The views expressed here, however, do not necessarily represent all the members of CenDEP, nor those of CSIRO.

Yours faithfully

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Disclaimer

The comments and recommendations contained in this Letter are opinions based on a number of technical or circumstantial parameters or assumptions. The opinion is provided to MCE for the specific purpose of providing preliminary comments on the National Code of Practice for Embedded Generation and the Discussion Paper: Impediments of the uptake of Renewable and distributed Energy. Use or publication of this opinion by any third party for any other use is at the third party's risk. The user must make its own assessment of the suitability for its use of the information or material contained in or generated from this Letter. To the extent permitted by law, CSIRO excludes all liability to any party for expenses, losses, damages and costs arising directly or indirectly from using this Letter.