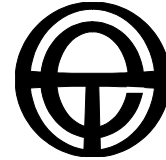


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Renewable and Distributed Generation Working Group Secretariat
Ministerial Council on Energy
MCE Secretariat
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Dear Working Group,

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

Total Environment Centre (TEC) is pleased to be able to comment on this discussion paper, and we commend the Renewable and Distributed Generation Working Group on its coverage of the barriers to renewable and distributed generation. We support the introductory statements that, “Increased uptake of renewable and distributed generation (R&DG) has the potential to deliver a range of important benefits ... However, the emergence of new R&DG technologies ... presents a range of challenges in optimally developing Australia’s R&DG base.” (p 5)

Renewable and distributed generation provides a range of benefits that are not currently recognised in the NEM. These benefits include:

- reduced greenhouse gas emissions, because of the form of energy and from reduced transmission losses (DG)
- improved supply reliability through generation diversity
- reduced greenhouse gas emission costs
- improved power quality and reduced power losses because of generation closer to customers
- avoided network augmentation costs.

To recognise these benefits and rectify this imbalance, barriers to renewable and distributed generation should, as a minimum, be removed and preferential treatment should be facilitated. In particular, networks should adapt to increased proportions of wind energy rather treating wind energy as a technical problem.

TEC has joined with other environment groups – under the banner of the Climate Action Network of Australia (CANAA) – in commenting on the Draft Code of Practice for Embedded Generation (COPEG), also submitted today. The draft Code does go some way towards designing clear, standardised provisions for connection of small/embedded generators into the network system.

Many of the comments in the joint submission to the code are relevant to this discussion paper on impediments (see Attachment A). In addition, it is difficult here to make generalised comment about distribution network issues in general since there

is not yet a firm framework. TEC has previously presented a submission on the transfer of distribution and retail functions (see Attachment B) and there is considerable duplication across these documents.

Since the main forms of renewable energy are generally embedded within the distribution network, the impediments to their uptake are also generally congruent with those applying to embedded generation (EG). Our main concerns in this area are:

- A major impediment is the connection costs paid by embedded generators – the accepted standard is for major generators to pay shallow connection costs, but embedded generators may be expected to pay deep connection costs (that is, for upgrades to the system overall) even when they may be making only a minor contribution to the total load.
- Avoided transmission and distribution use of system charges must be awarded to embedded generators where appropriate, not just “if requested” as is suggested in the draft COPEG.
- Where a renewable energy source/generator is being proposed and substantial network augmentation is necessary, alternative arrangements should be made at a national level or NEM-wide for funding the augmentation rather than the network service provider or the generator footing the bill.
- Advanced interval meters with remote communication capabilities should be installed across the National Electricity Market (NEM), with the rollout beginning by 2007. The benefits for demand management and cost-reflective pricing are sufficiently clear to justify the costs. In conjunction with this, a standardised scheme should be developed for tariffs across the NEM to ensure transparent time-of-use pricing. The details could be tailored to meet local demand/climatic conditions.
- To date, lack of information has proved a significant barrier within the NEM, both in terms of accountability of the regulator and restriction of entry by competitors (such as DM providers and embedded generators). Some of the recommendations in the draft COPEG assist with this problem, but fall short of removing this impediment. For instance, standard connection agreements should be developed by each distributor, and all standardised documents should be made publicly and readily available.
- The CANA COPEG submission provides for an extra category of generators in the draft COPEG – Mini Embedded Generators (EG) – to include generators between 5kW and 100kW. These should be covered by the standard arrangements recommended for Micro EG. It also recommends modifying the definition of Micro EG to include generators up to 5kW (instead of 2kW). This would expedite their connection into the distribution network.
- A balance needs to be struck to allow smaller generators, particularly those involving renewable energy sources, easy access to the system, while ensuring that fossil fuel generators remote from the load points contribute to the true costs of providing network services.
- The deferred implementation of the Code, due to its subservience to current jurisdictional arrangements, will only perpetuate existing impediments. The

final COPEG should be prescribed through the National Electricity Rules and, in the meantime, the jurisdictions should be required to expedite its adoption by applying it to all new connections, while being encouraged to modify or remove conflicting legislation once the Code is formally adopted at the national level.

For further detail, we refer the MCE to the attached submissions on the draft COPEG and the framework for distribution and retail.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Jeff Angel', written in a cursive style.

Jeff Angel
Director