



30<sup>th</sup> August 2006

Small Scale Licensing Framework  
Essential Services Commission  
L2, 35 Spring St  
Melbourne VIC 3000

By e-mail to: [smallscalelicensing@esc.vic.gov.au](mailto:smallscalelicensing@esc.vic.gov.au)

## Response to Small Scale Licensing Framework Issues Paper

The Alternative Technology Association (ATA) welcomes the opportunity to provide a response to the Small Scale Licensing Issues Paper, prepared by the Essential Services Commission (ESC). ATA is encouraged by the stated desire to better accommodate small-scale distribution and retail activities, as outlined in the reports preface, and eagerly anticipates an outcome which supports this desire.

ATA is a not-for-profit organisation established in 1980 to promote the uptake of sustainable technologies in order to protect our environment. The organisation provides service to over 3000 members, who are actively promoting sustainability in their own homes by using good building design and implementing water conservation and renewable energy technologies. ATA advocates in both the government and industry arena for ease of access and continual improvement of these technologies, as well as the production and promotion of information and products needed to change the way we live.

### Embedded Generation

Small-scale embedded generation, utilising existing and widely-available renewable energy or low-emission technologies, offer a practical approach to reducing greenhouse gas emissions and addressing electricity network supply constraints. Incorporated into localised, embedded networks, such technologies offer numerous advantages over large, remotely-located generators, delivering significant environmental and economic outcomes.

Some of the potential benefits and advantages of embedded generation include:

- ? improved supply reliability through generation diversity;
- ? greater individual and community control over energy sources;
- ? reduced dependence on a small number of large remotely located generators;
- ? generation closer to customers resulting in improved power quality and reduced power losses;
- ? reduced greenhouse gas emissions resulting from reduced transmission losses;
- ? avoided network augmentation costs and more efficient network tariffs;
- ? reduced need for additional large power stations and concentrated generation sources;
- ? improved employment opportunities, with small-scale renewable projects providing more jobs per MWh of electricity produced than conventional energy sources; and
- ? the ability to provide electricity at times of peak demand (in the case of solar photovoltaics).

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Embedded networks typically favour low or zero emission technologies, such as cogeneration and renewable energy. At present, the renewable energy industry operates in an economic climate which favours more traditional, greenhouse gas-intensive forms of energy. Renewables and low emissions technologies are at a distinct disadvantage due to:

- ? the lack of accounting for the true costs of environmental damage resulting from greenhouse pollution, reflected in the absence of a carbon tax and other financial disincentives to major emitters;
- ? lack of certainty for investment due to the absence of a long-term policy framework for greenhouse gas emissions reduction;
- ? impediments to access to the national electricity markets for embedded forms of renewable energy generation, including both high financial costs and an absence of standard contracts and connection arrangements;
- ? market failure to account for the full economic advantages of embedded renewable generation, including the avoidance of network augmentation to supply an increasing electricity demand; and
- ? perverse subsidies for the fossil fuel industry.

The application of renewable energy generation through embedded networks and the direct retail of generated electricity to customers has the potential to overcome a number of these barriers. Direct supply of embedded generation to customers provides an avenue for avoiding unnecessary generation and transmission system augmentation as well as excessive transmission and distribution network supply costs. However these benefits are dependent on access to the retail market, which can be enhanced by improvements in small scale licensing arrangements.

## Customer Protections

Great potential exists for embedded networks beyond these limited applications, into residential areas of medium to high density, thus capturing a broader range of the above benefits and advantages. In order for proponents of embedded networks to receive the security of income required to justify the initial capital expenditure, they require access to a secure market for their product. This is already the case where embedded networks supply a single entity, such as a hospital or large commercial facility, or a captive audience, as in the case of a network within a single large building or isolated industrial estate. However, in a residential context, present consumer protection arrangements hinder the ability of embedded network proponents to create such an arrangement.

ATA acknowledges and appreciates the need for certain levels of customer protection, specifically for essential services such as energy, as provided by the ESC. However in the case of embedded networks, these well-intended customer protections result in an inability of embedded network operators to secure a market, with customers connected to the networks afforded the ability to switch retailer at any time. These arrangements place an untenable burden on proponents on embedded generation and network providers, and thus stifle access to, and competition within, the wholesale electricity and distribution network markets

ATA believes that, provided sufficient safeguards exist with regard to quality of supply, cost and reliability, embedded networks should be able to have access to a limited captive market through which to retail electricity produced by embedded generators. Indeed, avoided transmission and distribution costs and wholesale price fluctuations means such embedded generators / networks have the potential to provide electricity and costs lower than the established retail market.

## Regulation Options

ATA favours Option 2 as raised in the Issues Paper, bringing the State in line with the National Electricity Law (NEL) and maintaining exemptions for embedded networks under the OIC, including both the distribution and

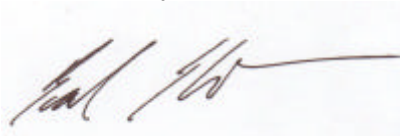
resale of electricity. However, ATA recommends the amendment of the terms and conditions applied to those entities exempted under the OIC to account for the above concerns. The terms and conditions of the OIC should remove impediments and barriers, whilst creating certainty and a level of guaranteed access to markets for proponents of embedded networks.

The promotion of small-scale embedded networks has the potential to greatly increase access to the retail market for embedded generation units, providing economic benefits through reduced network costs and increased competition on the supply side, environmental benefits via reduced transmission losses and a move towards renewable and low-emission generation technologies, and social benefits through a move towards community ownership of electricity supply infrastructure.

### **Further Contact**

ATA commends the ESC for undertaking this review of small scale licensing, and would welcome the opportunity to discuss any aspect of this submission or the licensing framework further. Please direct any questions or further correspondence to Brad Shone, Energy Policy Manager, on 9631 5406 or [Brad.Shone@ata.org.au](mailto:Brad.Shone@ata.org.au)

Yours sincerely,

A handwritten signature in dark ink, appearing to read 'Brad Shone', with a long horizontal flourish extending to the right.

Brad Shone  
Energy Policy Manager  
ATA