Submission No 21

COGENERATION AND TRIGENERATION IN NEW SOUTH WALES

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green building council australia

Building a sustainable future

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The Committee Manager
Public Accounts Committee
Parliament House
Macquarie St
SYDNEY NSW 2000

Dear Sir/Madam,

RE: COGENERATION AND TRIGENERATION IN NEW SOUTH WALES (INQUIRY)

Thank you for the opportunity to provide comment on the installation and use of cogeneration and trigeneration technology in New South Wales. The Green Building Council of Australia (GBCA) supports technologies, policies and regulations that contribute to lower greenhouse gas emissions and lower environmental impacts from the built environment.

We believe that cogeneration/trigeneration is one of many viable forms of alternative energy generation that can be adopted on a building or precinct scale to deliver lower emission energy generation. Cogeneration/trigeneration systems can provide substantial environmental and economic benefits. However, the current connection process for embedded generation systems is onerous, time consuming and costly, whilst appearing to favour network distributors and providing little certainty to proponents looking to connect such systems.

On 27 June 2013, the Australian Energy Market Commission (AEMC) published its draft rule determination and draft rule on connecting embedded generators, in response to a rule change request submitted by ClimateWorks Australia, Seed Advisory and the Property Council of Australia. The GBCA supports the draft rule released by the AEMC and believes that the proposed rule will benefit industry and lead to better outcomes for the built environment in the short, medium and long terms.

These changes will bring a more consistent, standardised and Australia-wide approach, whilst removing the identified barriers to the process for embedded energy generators connecting to the grid. States and territories currently have different rules and requirements, the GBCA supports harmonisation of regulations and urges the New South Wales Government to adopt these changes. The GBCA recognises that there may be certain situations in some jurisdictions that will require more customised treatment.

About the GBCA
The GBCA is Australia's authority on sustainable buildings and communities, established in 2002 to develop a sustainable property industry in Australia and drive the adoption of green building practices. The GBCA promotes green building programs, technologies, design practices and processes, and operates Australia's only national voluntary comprehensive sustainability rating system for buildings and communities - Green Star.

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The GBCA has more than 750 member organisations, including government departments and local councils, which work together to support the Council and its activities. The GBCA is also a founding member of the World Green Building Council (WorldGBC), which was established to provide a federated 'union' of national green building councils with a common goal to support the sustainable transformation of the global property industry; there are now 100 such councils worldwide.

Green Star rating tools

Green Star is a voluntary rating tool that encourages, recognises and rewards best practice and innovation. The first Green Star rating tool was released in 2003 in response to market demand for a rating tool that would evaluate the environmental design and construction of buildings as well as establishing a common language for green buildings.

There are currently 12 Green Star rating tools which address a range of building types and 616 projects have now achieved Green Star certification across Australia, with a further 450 projects registered. The Green Star rating system is designed to take an holistic approach within each class and building sector, addressing nine categories in total: Management, Indoor Environment Quality (IEQ), Energy, Transport, Water, Materials, Land Use and Ecology, Emissions and Innovation.

With over 600 projects delivered and certified, Green Star has a proven track record when it comes to implementation of efficient, healthy and productive green buildings. On average, Green Star-certified buildings produce 62% fewer greenhouse gas emissions than average Australian buildings. The cumulative savings in greenhouse gas emissions from Green Star-certified buildings equates to 172,000 cars removed from our roads, when compared to average Australian buildings – that is 625,000 tonnes CO_2 per annum.

Benefits and applicability of cogeneration/trigeneration technology

The GBCA is committed to promoting green building practices, designs and technologies that will help to develop a more sustainable property industry in Australia. Many of our members are involved directly or indirectly with embedded energy generators and/or energy distribution such as cogeneration/trigeneration systems, and while this means our membership will have a range of views on the installation and use of cogeneration/trigeneration systems, the GBCA seeks to represent the interests of our members where they align with the mission of the GBCA.

Property owners and developers are interested in including cogeneration/trigeneration systems in their projects for a number of reasons, lower capital costs of generation, higher rental and capital yields, desire to reduce their carbon footprint, reduced exposure to electricity costs and the impact of a carbon price as well as meeting corporate responsibility and environmental leadership objectives.

Many industry leaders have recognised both the environmental and economic benefits of embedded energy generation such as cogeneration or trigeneration systems, and have been early adopters of the technology. With the property sector accounting for approximately 24 percent of Australia's greenhouse gas emissions, the built environment offers great opportunities for significant low-cost greenhouse gas abatement. ClimateWorks Australia has estimated that 13.5 million tonnes of abatement could be achieved by 2020, via cost-effective deployment of cogeneration/trigeneration technology.

A number of Green Star-certified projects include cogeneration/trigeneration systems with many more registered projects planning to include them. Green Star recognises cogeneration/trigeneration systems within the *Ene-5 Peak Energy Demand Reduction* credit which awards points where it can be demonstrated that a project has incorporated a system, such as a cogeneration/trigeneration system, that successfully reduces the peak energy demand of the building. In addition to this the *Ene-1 Greenhouse Gas Emissions* credit awards points where projects reduce or eliminate the CO_2 emissions of their building. This can be achieved in a variety of ways, including through efficient design and/or low carbon onsite energy generation. While these credits can often be a driver for the use of cogeneration/trigeneration systems, it is important to note that Green Star is a rating tool which sets best practice benchmarks across a range of credits. Green Star recognises projects which meet these benchmarks and rewards the outcomes rather than specific designs or technologies.

The current regulatory framework and barriers to installation

The GBCA advocates for contemporary regulations that seek to evolve with industry practice and innovation and which will improve outcomes for the sustainability of the built environment. The current regulatory environment for cogeneration/trigeneration is complicated, lacks transparency and clarity, and provides little certainty to proponents exploring options for installing of the technology.

One barrier currently faced by development projects considering the installation or connection to shared or precinct-wide cogeneration/trigeneration systems, is the lack of clarity provided by the national administrator of the NABERS rating scheme, with regard to the apportioning of greenhouse gas emissions for buildings that utilise cogeneration/trigeneration technology. Feedback from the industry has indicated that the delay of the administrator to provide a ruling on a methodology for the apportioning of greenhouse emissions for projects connected to a shared or precinct wide cogeneration/trigeneration system is seen as a barrier to its use. As the New South Wales Office of Environment and Heritage (OEH) is the national administrator of the NABERS rating scheme, we encourage the New South Wales Government to consider providing clarity around this issue to enable the removal of this barrier.

In 2011, the *Unlocking Barriers to Cogeneration (UBC) Project* sought to identify solutions to the barriers facing the deployment of cogeneration/trigeneration systems. This included a number of ways in which the National Electricity Rules pose barriers for embedded energy generators to connect to the electricity grid. These barriers include:

- inconsistent national and jurisdictional regulation;
- case-by-case connection processes;
- a lack of clear and binding timelines;
- a lack of standard information requirements;
- diverse technical requirements;
- significant connection and network augmentation costs; and
- different connection terms amongst distribution network service providers (DNSPs).

In September 2011, the UBC Project released the *'Unlocking Barriers to Cogeneration: Project Outcomes Report'* that outlined the proposed solutions to overcoming these barriers, allowing the wider adoption of cogeneration/trigeneration systems within the built environment. This report led to the authors, ClimateWorks Australia, Seed Advisory and the Property Council of Australia submitting a rule change request to the AEMC. On 27 June 2013, the AEMC published its draft rule determination and draft rule on the connecting embedded generators rule change request. The AEMC has stated that the rule;

> "will provide a clearer and more timely process to connect embedded generators to distribution networks. The draft rule also provides greater clarity on the provision of information between embedded generators and distributors throughout the process to support efficient investment in embedded generation and distribution networks."

The GBCA believes that increasing transparency and certainty for those wishing to connect embedded energy generators to the grid for the purpose of exporting energy is an important objective, with the long term objective of reducing and eliminating greenhouse gas emissions from built environment energy generation.

The GBCA supports changes to the rules that will bring a more consistent, standardised and Australia-wide approach to the process for embedded energy generators to be connected to the grid. The GBCA supports harmonisation of regulations while recognising that there may be certain situations in some jurisdictions that will require more customised treatment. Making rules and requirements simpler, clearer and more consistent will help to reduce the confusion in the marketplace and enable case studies to be relevant across the country, not just regionally.

We appreciate the opportunity to provide comment on this issue and would be happy to provide further information to assist with the committee's inquiry, if required.

Yours sincerely,

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Robin Mellon
Chief Operating Officer
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