Centre for Energy and Environmental Markets

**Seminar 15th February 2008
12-1pm
Location: Room G3, School of Electrical Engineering and
Telecommunications**

What does the expanded MRET mean for the NEM?

**By
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ROAM Consulting Pty Ltd**

ROAM Consulting is a leading provider of expert services in energy market systems for participants in the Australian National Electricity Market (NEM). Our focus is on detail, with an integrated suite of advanced simulation software available. With the recent announcements of the expanded Mandatory Renewable Energy Target (MRET), and the imminent onset of an Emissions Trading Scheme in Australia, our focus has been on modelling the implications of these schemes for the NEM. With sophisticated software that models the bidding behaviour of each individual generator in the NEM on a half hourly basis we have determined the impact of adding significant quantities of wind and bagasse generation over the short term to meet the expanded MRET. Pool prices in all regions are significantly depressed below business as usual (especially in Victoria), with renewable generation under-bidding conventional generators. Due to competitive market bidding, however, the increased renewable generation is largely at the expense of gas-fired plants (with a lower greenhouse intensity). This means that the increase in renewable generation results in a lower proportionate reduction in greenhouse gas emissions. I will discuss the implications of our MRET modelling results, and will finish with a discussion of our early results in modelling the impacts of a carbon price and emissions trading.

Jenny joined ROAM Consulting in 2007 after completing a PhD in biophysics at the University of Queensland, studying energy transfer processes in melanin pigment. Employing techniques such as theoretical quantum mechanical modelling, advanced spectroscopy and nuclear science, she is experienced at finding solutions to ill defined and complex problems. Working at the boundary between physics and biology, she has also developed extensive skills for working in multidisciplinary fields and cross-boundary collaborations. She published a total of 13 academic papers in international journals through the course of her PhD, and became recognised on an international level as an emerging leading researcher in her field.

In 2006 Jenny was sponsored by Rio Tinto, Theiss, Powerlink and BP to tour Australia giving public seminars on the topic of climate change. She was an active participant at the high profile national Greenhouse conference (Sydney 2007) and the Australian Meteorological and Oceanographic Society conference on climate change and wind engineering (Geelong 2008). Jenny has developed a strong interest in issues to do with climate change, particularly those relating to the energy industry. She is interested in

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practical methods for mitigation of greenhouse gas emissions, as well as effective planning of adaptation that will be necessary to combat changing weather patterns.

Jenny was Queensland Young Achiever of the Year 2007.

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