

2009 School Seminar Series

Waikato Management School
Te Raupapa



Is a Ninety Percent Renewable Electricity System Feasible for New Zealand?

Wednesday, 30 September 2009
1.10pm – 2:00pm
MSB0.01

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Abstract

Concerns about anthropogenic climate change have led to discussions about measures that will reduce greenhouse gas emissions from energy production. Electricity generation produces around 8.3 million tonnes of CO₂ and is New Zealand's third largest source of greenhouse gas emissions after agriculture and transport.

Historically, New Zealand has produced the majority of its electricity from hydro power, which is considered not to produce emissions of greenhouse gases. However, the proportion of electricity produced from hydro has been declining since the early 1970s and more reliance has been placed on fossil fuels such as gas and coal. The last Labour-led government set a target of moving to 90% renewable electricity from the current level of around 65%. In November 2008, the new government announced that it would review this policy.

This presentation will discuss what would be involved in moving to an electricity system that is, at least, 90% reliant on renewable electricity. This presentation will briefly discuss the development and current structure of the electricity system, New Zealand's endowment of non-fossil fuel energy resources, the effect of the current market and regulatory arrangements on the uptake of renewables, and the potential role of the demand side of the market.

Presenter:

Doug Clover is a PhD student at Victoria University of Wellington studying the effect of the introduction of electric vehicles on New Zealand's future energy demand and greenhouse gas emissions. He previously worked in a number of the public sector agencies, including the Ministry for the Environment and the office of the Parliamentary Commissioner for the Environment in the areas of sustainable energy and transport.

Presenter: Doug Clover