

## Defects in the target: nRET

Prior to the 2007 election, the Labor Party's commitment to increase the share of Australia's electricity generated from renewable sources to 20% by 2020 was a key component of its strategy to reduce Australia's greenhouse gas emissions, second only to the introduction of an emissions trading scheme. Now in power, Labor announced details of how it proposes to meet this commitment - at a low key press conference in Brisbane two days after the highly publicised launch in Canberra of the emissions trading scheme (called the Carbon Pollution Reduction Scheme, CPRS), and just eight days before Christmas.

The Government proposes to amend legislation of the current scheme to boost renewable electricity generation, the Mandatory /Renewable Energy Target (MRET), and to change its name to national Renewable Energy Target (nRET). Implemented by the Howard Government, the MRET aimed for an increase of 9.5 TWh, equal to about 4% of total electricity generated in 2007, in the annual quantity of renewable electricity generated between 2001 and 2010.

In fact, almost no legislative changes will be made in moving from MRET to nRET, other than to insert an additional target of 45 TWh, to be achieved by 2020, and to specify the lesser year by year targets culminating in the final 45 TWh. The major legislative changes concern the treatment of small scale (rooftop) photovoltaics, which are likely to contribute less than 1% of the nRET target, yet received almost all the media coverage. However, the much larger issues are the potential for failure of the scheme to meet its main objectives, because it is keeping all the bad features of the old scheme, as well as the good ones.

To understand why this is so, it is helpful to look at the achievements, and failures, of the MRET.

The MRET creates a separate, higher priced wholesale market for renewable electricity, which operates alongside the much larger and lower priced wholesale electricity market, dominated by coal fired generation. This mechanism allows the market to bring emerging technologies to full commercial status, with the discipline of competition to prevent excess profits. While criticized by many for picking winners, the MRET instead chooses the very broad and indubitably important category of renewable energy, and then allows the play of market forces to determine which of many possible renewable generation technologies will be successful.

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The winner picked by the MRET market was wind. The great success of the scheme was to allow the market to discover that Australia had a much larger wind energy resource than had previously been thought. The result was a boom in wind farm construction as Australia benefitted from rapid technical advances in the world wide wind generation industry, and improvements in designing and building wind farms flowing from the experience of doing so. Learning by doing is here an important consideration in longer term cost benefits.

Unfortunately, a fundamental design defect in the scheme meant

that the boom was followed by a bust, with factories shutting down and investors moving to other countries. The defect is so-called unlimited banking, which allows generation in excess of the low target requirement in early years of the scheme to be held and used in later years when the target is higher. As a result, overbuilding in early years is encouraged, increasing the likelihood of a later bust.

Had the target been larger, the bust would have been less severe, but in fact the target is more than 20% smaller than it appears.

This is the share taken by a technology which does not even generate electricity – solar water heaters. Far from being the result of considered policy making, inclusion of solar water heaters is the outcome of a messy last minute compromise made when the original MRET was legislated. It is the second major defect being carried over into the new scheme. What is worse, its damaging effect will be greatly amplified because the number of solar water heaters installed each year may increase by as much as five- or tenfold, because of a completely separate policy commitment to phase out residential off-peak electric water heaters.

With unlimited banking and the retention of solar water heating, the long queue of near ready to build wind farm projects and a regulation driven boom in solar water heaters means that these two technologies are likely to swamp the scheme. This could be disastrous for other highly promising, but slightly less mature technologies, notably hot rock geothermal and concentrating solar thermal generation, because when they are ready to scale up, in perhaps four or five years from now, there may be no space for them within the target. This possibility was clearly spelled out in the discussion paper on nRET design, which the Government released last year.

The press release accompanying the scheme launch says it will “[help] us build the low-pollution economy and jobs of the future” and “[drive] investment in renewable technologies like wind, solar and geothermal energy”. In fact, because of its design defects, the legacy of the proposed nRET in 2020 is likely to be lots of wind farms and solar water heaters, but no significant geothermal or solar thermal capacity and no capability for these technologies to continue to grow Australia's renewable generation as the support provided by the nRET falls away. This would be bad energy policy, bad economic policy and bad for our prospects of reaching the Government's long term target for greenhouse gas emissions reduction.



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