



Submission Renewable Energy Target Scheme Review

to:
The Climate Change Authority

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1 Introduction

The Climate Change Authority is reviewing the Renewable Energy Target Scheme. In accordance with the call for public submissions, Advanced Energy Consulting (AEC) provides the following comments. The Principal of AEC [REDACTED] has had 18 years of experience in electricity markets internationally including in New Zealand, Australia, Canada, the USA and South Africa. [REDACTED] has focused on the wind energy sector of the electricity industry since 1995 and has been instrumental in developing wind energy projects in Australia and overseas with companies such as Stanwell Corporation, Hydro Tasmania, Roaring 40s and Windlab Systems. This practical experience related to the installation of wind energy projects in a variety of jurisdictions makes [REDACTED] well placed to comment on the RET scheme review.

2 RET Review Considerations

Advanced Energy Consulting respectfully suggests that the following issues should be considered by the Climate Change Authority during the course of their RET review:

The Current (or larger) target is practically achievable

Market knowledge shows that there is approximately 21,000 MW of potential wind energy projects currently under various stages of investigation (pre-construction). Of these projects, approximately 6,000 MW of projects already have development permits. This project pipeline places the industry in a good position to meet the current target or an increased target should the level be raised.

Currently enough time is available to bring the volume of projects required by the RET to market. However time is running out. Further market uncertainty will put the potential for achieving the current RET at risk.

The RET has a proven track record

The RET is enthusiastically supported by a highly skilled industry, responsive and dynamic industry. This resulted in the first 2% MRET being met ahead of time.

South Australia is an excellent working example of what can be achieved with renewable energy. Over 26% of electrical energy is now being provided with wind energy with little evidence of the need for extra back up generation. The cost of integrating wind energy into the system has been low. Reports and data on the performance on wind energy in South Australia by the Australian Electricity Market Operator, as well as others, should be carefully considered in the RET review.

The large-scale RET is an efficient, cost effective scheme

The competitive nature of the scheme drives the least cost supply of renewable energy into the market, without the side effect of over promise and high failure rate (as can happen with a tendering type scheme).

Project innovation and project risk is firmly in the hands of the private sector rather than with government. This allows for rapid application of new technical or financial solutions. Mistakes and learnings are also largely within the domain of the private sector which allows for a quick learning cycle and minimal consequences for government.

The market based nature of the RET allows the benefits of a maturing industry to be quickly passed to consumers. An example is that the recent rapid decline in wind turbine prices has quickly been reflected in lower energy and Renewable Energy Certificate (REC) prices required for projects to proceed.

Market uncertainty has severely damaged Renewable Energy roll out in the past

Failure to extend or expand the original 2% renewable energy target around 2004-2005 resulted in the stalling of the renewable energy industry in Australia and manufacturing plant that had opened consequently closed and moved overseas (for example a wind turbine blade manufacturing in Portland, Victoria and a wind turbine nacelle manufacturing in Burnie, Tasmania).

Market uncertainty related to the flooding of market with RECs due to the solar multiplier severely damaged roll out of plant that would have produced genuine RECs.

It is suggested that the Climate Change Authority be very carefully not to make any alteration to the RET scheme that would create investor uncertainty.

The cost / benefit of the RET should be carefully considered

If, as part of the RET review, the Climate Change Authority conducts a cost / benefit assessment, the following issues should be considered:

- The cost of RECs into the future including the ability for REC costs to decrease with time as innovation makes renewable energy cheaper and as conventional generation costs rise.
- The benefit of a more diversified electricity system created by the inclusion of renewable energy.
- The reduced reliance of the electricity system on water supply (drought conditions in 2007 caused thermal power stations to reduce capacity resulting in very high electricity prices).
- The wholesale price suppression (or 'merit order') effect that renewable energy appears to be having in markets such as South Australia.
- The ability for renewable energy to be a hedge against fossil fuel prices (particular gas prices).
- The minimal cost of integrating wind energy into the existing electrical systems as experienced in South Australia.
- Benefits that come from the modular nature of renewable energy – installation can better and more quickly meet demand requirements compared to forward planning large and expensive conventional power plant.
- The cost of energy beyond the accounting horizon of 25 years. That is, once capital costs are fully depreciated the marginal cost on energy from renewables will be very very low.

- The significant reduction of carbon dioxide emissions resulting from renewable energy roll-out.

Note that the Centre for Energy and Environmental Markets (CEEM) at the University of NSW is investigating the economic effects of wind energy in South Australia including the merit order effect and the effectiveness of wind energy as a hedge against gas costs. It is recommended that the CEEM be consulted during the RET review.

Extending the target should be considered

The impressive result in South Australia is that a significant amount of renewable energy (over 26% by average energy produced) has been integrated into the electricity system relatively easily within a short timeframe.

Reflecting such a successful result throughout the remainder of the National Electricity Market would not seem unreasonable. It is therefore suggested that the RET be expanded by a further 10,000 GWh by 2025. At the very least, the South Australian results should provide comfort that if a fixed GWh target produces greater than 20% renewable energy by 2020, then such a scenario is reasonable.

3 Conclusion

The Renewable Energy Target is a well understood, efficient and cost effective scheme that has a proven record of delivering large amounts of renewable energy in a timely manner. The scheme delivers extensive benefits to the Australian population compared to its minimal cost. Opportunities for strengthening or expanding the target should therefore be examined. Uncertainty has proven to be damaging to the progress of renewable energy roll out in the past and therefore the CCA should be wary of alterations that weaken the target or could potentially upset investor confidence.