AUSTELA

Australian Solar Thermal Energy Association Ltd

19 September 2012

Submissions
Climate Change Authority
By email: submissions@climatechangeauthority.gov.au

Issues Paper – Review of Australia's Renewable Energy Target

I write on behalf of the Australian Solar Thermal Energy Association (AUSTELA) in response to the Climate Change Authority's call for submissions on the Authority's Issues Paper for the Review of the *Renewable Energy (Electricity) Act 2000* (Cth) *(REE Act)*.

AUSTELA

AUSTELA is the industry body solely dedicated to solar thermal power generation in Australia. AUSTELA works collaboratively with existing solar, clean energy, research and other bodies with the goal of significantly improving the investment environment for solar thermal power generation in Australia.

AUSTELA is composed of many of the leading national and international industry participants in solar thermal power development.

AUSTELA'S objectives are to increase opportunities for solar thermal power development in Australia by:

- Presenting informed insights to policy-makers and investment decision-makers on the economic and operational benefits of large- scale solar thermal power generation
- Improving confidence in solar thermal power technologies, drawing on international data and experience
- Informing transmission and distribution system design and investment rules to leverage the network benefits available from solar thermal power
- Ensuring an appropriate allocation of Government funds is directed to Australian solar thermal power projects - particularly increased demonstration funding
- Enhancing access for Australian researchers and policy-makers to leading global research and experience in solar thermal power technology and project development, and
- Establishing the platform for a strong and dynamic solar thermal energy industry in Australia, delivering value within Australia's energy system and competing in the international markets for solar thermal power generation and high value solar fuels.

AUSTELA is closely linked with international industry bodies in the solar thermal energy sector, and is a founding member, along with the European and South African solar thermal industry bodies, of the World Solar Thermal Electricity Association.

Australian Solar Thermal Energy Association Ltd, (ABN 79 149 500 210), P.O. Box R1134, Royal Exchange, NSW 1225
C/- Level 10, 17-19 Bridge Street, Sydney, NSW 2000, Australia **Contact:**
AUSTELA@AUSTELA.com.au

Summary of key submissions

1. **Stability and clarity in the RET is vital to efficient investment in Australia's energy sector. No change should be made that reduces certainty, or introduces or exacerbates uncertainty, for investors or liable entities in relation to the obligations imposed by the RET.**

   The Renewable Energy Target (RET) is the key policy measure driving renewable energy investment, development and research in Australia. Any change to the RET, following the recent split of the RET into the small-scale and large-scale schemes, will significantly erode already fragile investor confidence in renewable energy investment in Australia. This is likely to have significant impacts on Australia's attractiveness as a destination for inbound investment in the energy sector – not only for renewable generation, but for all forms of electricity investment.

   Stability in and maintenance of the current clear, firm, long-term obligations under the RET is vital to efficient electricity sector investment in Australia.

2. **The RET remains the most vital complementary measure in Australia's climate risk mitigation strategy. Maintenance of the RET is essential until such time as domestic pricing of carbon emissions is sufficient to drive renewable energy investment at levels sufficient to meet Australia's 2020 and 2050 carbon emissions reduction targets.**

   The Clean Energy Act and related measures provide a framework for the introduction of a carbon pricing system in Australia, to support Australia's near and long-term targets for carbon emissions reduction.

   However

   - The CEF Act is a measure designed to implement a long-term change incrementally, with a soft start designed to ease market changes in gradually – it will take many years to begin to produce reliable price signals reflecting underlying climate risks and carbon emissions reduction targets, and to operate as an effective market.
   - The domestic carbon market is suffering from material uncertainties as a result of political circumstances; these uncertainties prevent it from commencing operation as an effective market at present, and it is unlikely these uncertainties will be removed during the current RET review period (until 2012)
   - Fixed pricing provided for under the CEF Act for the first 3 years of the Australian carbon pricing mechanism is insufficient alone to fully internalize carbon costs associated with electricity generation in Australia
   - Compensation measures under the CEF Act relating to coal-fired power generation have had and will continue to have significant distorting effects in the market for some years

- Linkage of the Australian emissions trading scheme with the EU-ETS, while in the long term a positive step towards a liquid, multi-national or global emissions trading scheme, is likely in the near term tend to reduce carbon emission costs for liable entities in Australia, thus reducing incentives for investment in renewable energy generation.

Reducing Australia's heavy dependence on carbon-intensive stationary energy will be a major factor in Australia's success or failure to achieve Australia's emissions reduction targets. Australia will need to replace much if not all of its current stationary generation capacity in order to achieve the 2050 emissions reduction target of 80%.

However, while the Clean Energy Act measures provide a long-term framework for internalization of carbon emissions costs in energy generation, transitional factors in that framework, combined with the prevailing political and energy market dynamics, do not provide a near-term framework that is effective to deliver the scale of investment in renewable energy required in Australia today.

Renewable Energy Target must be preserved as the primary instrument driving investment in and deployment of renewable energy in the period to 2020 at least, while the uncertainties in the carbon market are clarified.

3. **Australia's electricity sector is in a state of complex and accelerating change. It is in Australia's interests to ensure the stable investment settings are maintained wherever possible in the electricity sector.**

In recent publications, Australia's energy sector regulators and economic bodies have confirmed the breadth and complexity of the reforms underway in Australia's electricity sector:

- As noted in the recently released Australian Energy Technology Assessment (AETA)[1], Australia is facing a very different energy future in which, in the period to 2050, renewable energy will play a much larger role. The AETA forecasts that wind generation and solar photovoltaic generation may be the lowest cost forms of generation by 2050.
- The Australian Energy Markets Commission (AEMC) noted upon the recent release of its Second Interim Report for the Transmission Frameworks Review[2],

> 'No-one knows with certainty what the future supply of electricity will look like in Australia. Wind, wave, gas, distributed generation, solar and other technologies will compete with existing plant for their place as a proportion of overall generation.'
>
> ... We know the types of electricity generation and their locations have already started to change in response to the changing patterns of consumption and the

[1] Australian Energy Technology Assessment, Bureau of Resources and Energy Economics, 31 July 2012
[2] Australian Energy Markets Commission, Transmission Frameworks Review, Second Interim Report, Calls for Submissions 15 August 2012

introduction of policies to address climate change. The current framework [for investments in generation and transmission] may not effectively deal with the change ahead and the risk of doing nothing is an inefficient framework for future investment.'

- The Australian Energy Market Operator (AMEO) noted in its recent Electricity Statement of Opportunities for 2012 that current investment interest in electricity generation is 'primarily driven by the Large-scale Renewable Energy Target and GreenPower Schemes.' However, evidencing the existing levels of investment uncertainty for renewable energy investment, AEMO also noted that '...publicly announced proposals for wind generation have decreased by around 2.200MW since the 2011 ESOO'.

During this period of change in Australia's electricity markets, unprecedented in scope and pace, stability must be maintained in investment settings wherever possible. Right now, the RET is the most significant policy measure in operation for electricity sector investment.

The RET must be maintained as a platform for stability of investment while the broad range of other changes in market, policy and regulatory settings in the electricity market are given time to coalesce through the period to 2020.

4. **Large-scale renewable energy investment is capital-intensive. To deliver the benefit of lower renewable energy costs in the Australian economy at the earliest possible time, Australia must maintain stability in the RET.**

Large-scale renewable energy investments such as concentrating solar thermal power development are by nature capital-intensive, with long amortization periods. The balance between fixed costs and variable (fuel) costs in renewable energy assets is quite different to that for traditional power generation assets.

It follows that project viability for large-scale renewable energy projects is highly dependent on costs of capital. Costs of capital in these projects is in turn highly influenced by certainty of project revenue over the amortization period.

Costs of renewable energy technologies such as concentrating solar thermal power will reduce significantly with deployment, as Australian investment and financial markets become familiar with relevant technologies and the earnings profiles of renewable energy assets.[3]

However, in order to benefit from these cost reductions, Australia must implement market and regulatory settings that both

- promote early deployment of these technologies, to allow financiers and investors opportunities to become familiar with renewable energy investments at the earliest possible time (enabling reductions in financing costs to be passed through to the Australian economy as quickly as possible), and

[3] *Realising the Potential of Concentrating Solar Power in Australia*, IT Power (Australia) Pty Limited for the Australian Solar Institute, July 2012

- provide clarity of revenue structures, and regulatory factors affecting those revenues, over the project life.

In the period to 2020, stability in regulatory settings for the RET is essential to delivering the lowest possible cost of renewable energy development for the benefit of the Australian economy and consumers.

5. **Australian energy policy remains weighted in favour of incumbent fossil fuel generation, exacerbating the challenges for renewable energy investment and for transition to a low-carbon electricity sector.**

The International Energy Agency estimates that, internationally, policy support for fossil-fuelled power production remains at levels 7 times that for renewable energy generation [4] and observes the distorting effects of such subsidies in energy markets.

As a member of the G20 nations, Australia committed in the 2009 G-20 Summit (Pittsburgh, USA) to 'rationalise and phase out over the medium term inefficient fossil fuel subsidies…'.

Despite this commitment, Australia has not merely retained all pre-existing fossil-fuel subsidies (such as the diesel fuel rebate, which operates as a disincentive to shifting from diesel usage to renewable energy supply in remote off-grid and mining generation), but has also introduced very significant new forms of fossil-fuel subsidization, including

- Concessional arrangements for carbon emissions from natural gas production
- Up to $4.5billion in funding allocations for 'clean coal' technologies and projects
- Compensation for carbon emissions costs related to coal-fired power generation
- In New South Wales', subsidization of development and operating costs at the Coborra Coal mine enabling coal-fired generation fuel costs below the cost of coal production,
- Most recently, in August 2012, $90 million from the Commonwealth and Victorian governments for new brown coal projects in the Latrobe Valley.

AUSTELA points to the gross distorting effects such subsidies have, and to the persistence of policy measures acting contrary to the establishment of a level playing field for renewable energy investment in Australia.

Until such time as subsidies for fossil fueled generation are eliminated, it is vital that measures supporting renewable energy generation be continued, and indeed expanded. The RET, as the key measure supporting renewable energy generation in Australia, is foremost among those measures that must be maintained.

AUSTELA urges the Authority, in applying the principles set out in the Climate Change Authority Act 2011 guiding the Authority's review of the RET, to take account of the

- economic and environmental inefficiencies
- inequity, and

[4] International Energy Agency, *Energy Technology Perspectives 2012*

- inconsistency with Australia's international obligations and objectives

of these types of subsidies for fossil fuels and traditional power generation, unless they are matched equally by supporting policy and investment in renewable energy.

The RET must, as a bare minimum, be maintained in its current form in order to provide Australians with a reasonable prospect of enjoying the benefits of renewable energy development for Australia's future in the face of continuing institutional and governmental subsidy for incumbent forms of power generation.

Conclusion: the RET has been, and continues to be, a highly cost effective policy measure producing investment, employment, industry development and research capability in the Australian economy. The RET must be maintained in its current form, as a minimum, to 2030.

Australia's blessings in energy resources have led to the development of a wide range of skills, industry capability, employment and investment in our energy sector. However the vast bulk of this investment has been in fossil fuel resource exploitation, and particularly in coal and gas.

Since the Renewable Energy (Electricity) Act 2000 was enacted, Australia has commenced the development of skills, industry capability, employment and investment in low and zero-carbon forms of energy generation that will be vital to Australia's transition to an efficient, low-carbon economy in the 21st century. The 2009 expansion laid the foundations for meaningful, long-term renewable energy investment and capability development in Australia.

The 2010 amendments, while unsettling for markets, produced improved clarity for large-scale, capital-intensive renewable energy development.

Very significant employment has been created and value delivered to the Australian economy and to consumers through the RET.

Without the RET, this investment, employment creation and skills development would not have occurred, and Australia would be languishing even further behind international competitors and trading partners in the transition to a low carbon economic future.

The RET (and other 'green power' schemes) comprise a small proportion of Australian electricity costs. The vast bulk of cost increases in recent years for Australian electricity consumers result from transmission and distribution network investment, reflecting Australia's aging electricity system assets and the dramatic rise in peak power demand. Renewable energy production is actually delivering wholesale pool price reductions.

The RET has been and remains one of the most cost-efficient and effective policy measures introduced in Australia's energy sector, and has delivered significant economic and strategic value for Australia. It is the most important measure driving electricity generation investment in Australia today.

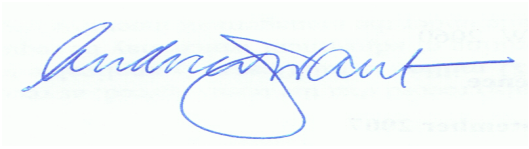
Stability in the RET is vital for investment in Australia's energy sector, to Australia's efforts to achieve our carbon emissions reduction targets, and to Australia's international competitiveness in the 21st century.

In closing, the concentrating solar thermal power industry wishes to reinforce the critical importance of stability in the RET for investment in Australia's energy sector by our members and international industry colleagues.

AUSTELA:

- urges the Authority to recommend in its Review that the RET be maintained in its current form, as a minimum, to 2030
- in particular, having regard to the long-term and capital-intensive nature of large-scale renewable energy investment, urges that there be no change to the LRET, and
- urges the Authority to recommend that consideration be given in the extension of the RET beyond 2030 to provide enhanced certainty for investors over the longer term.

Best regards



Andrew Want
Chair, AUSTELA