Chamber of the House of Representatives
Australian Renewable Energy Agency Bill 2011 & Australian Renewable Energy Agency (Consequential Amendments and Transitional Provisions) Bill 2011

1 November 2011

Sharon Grierson MP

Mr Speaker, I rise to speak in support of the Australian Renewable Energy Agency Bill 2011 and its cognate Bill.

This government has set a renewable energy target of 20% by 2020, and I note with some satisfaction that this is a bipartisan target, and that these Bills are designed to encourage the investment in clean energy technologies necessary to achieve this target.

In *Climate Change Denial: Heads in the Sand*, two Australian scientists, Haydn Washington and John Cook, wrote that '[t]o solve climate change will ... require a rapid and major conversion to renewable energy, as we have delayed for so long'. Perhaps they refer to the twelve wasted years of the Howard/Abbott government. Carbon pollution emitted as a by-product of electricity generation is easier to reduce than any other major source of pollution, especially agriculture and transport. But until the efforts of this government, there has been little incentive to undertake these reductions.

Under the Howard Government, renewable energy use as a proportion of total energy consumption actively declined. As a result of the former Howard Government's failure to support innovation in renewable energy production by investing in research and development, there remains a significant cost gap between renewable energy such as solar and conventional forms of energy such as black and brown coal. The Australian Bureau of Agricultural and Resource Economics inaugural Energy Resource Assessment found that:

> '[w]ith the exception of hydro and wind energy (which is growing strongly), many of these resources are largely undeveloped, constrained by the current immaturity of technologies'.

According to Professors Michael Dopita and Robert Williamson of the Australian Academy of Science:

> '[t]he impact upon the climate caused by our current energy use cannot be sustained. ... There exists a large difference between the price paid by consumers in Australia for electrical energy, over 80% of which is produced from black and brown coal, and the true cost of this energy, when we factor in

> the environmental impacts. Such market distortions hinder the development and deployment of cleaner alternatives'.

Without cost-competitiveness, there will be no renewable industry. These Bills, in conjunction with the package of carbon pricing reforms contained in the Clean Energy Future legislation, are designed to incentivise increased uptake of renewable energy by increasing the commercial viability of renewable-power generation, as compared to non-renewable forms of energy production such as black and brown coal. Research commissioned by the Clean Energy Future Group and contained in the 2004 report *A Clean Energy Future for Australia* found that Australia's greenhouse pollution could be halved by 2040 through a combination of energy efficiency and switching to currently available clean energy technologies. As this report indicates, commercialisation of research is vital.

These Bills create a statutory authority, the Australian Renewable Energy Agency (ARENA), to administer funding for research, development and commercialisation of renewable energy and related technologies. The authority will be independent and not subject to Governmental direction, excepting a number of safeguard provisions designed to ensure appropriate accountability and management.
The establishment of ARENA will streamline and centralise the administration of $3.2 billion in existing funding for renewable energy, currently managed by the Department of Resources, Energy and Tourism, the Australian Solar Institute back in my electorate of Newcastle, and the Australian Centre for Renewable Energy. According to Jenny Goddard, the Chair of the Board of the Australian Solar Institute, this:

> 'should allow a more strategic approach to setting priorities for government support across all renewable energy technologies and better connected and coordinated administration and program delivery in any one area of technology ... The establishment of ARENA will also include welcome longer term funding certainty and increased total funding for renewable programs'.

The Clean Energy Council, likewise, believe that '[t]he establishment of ARENA provides an opportunity for consolidation of the various programs currently spread out across the two agencies and develop a more co-ordinated approach to policy development and program delivery'.

The Australian Renewable Energy Agency Bill identifies the core functions of the Agency as being 'the storage and sharing of information and knowledge about renewable energy technologies' and 'liais[ing] with State and Territory governments and other authorities for the purpose of facilitating renewable energy projects for which financial assistance is, or is proposed to be, provided'.

ARENA will also be responsible for providing policy advice to the Minister for Resources and Energy and will build on the advisory functions of the Australian Centre for Renewable Energy. The Agency will be tasked with promoting collaboration with state and territory governments and other interested and relevant stakeholders to support renewable energy technology innovation.

A key priority for ARENA's Board will be the development of a rolling three-year funding strategy identifying ARENA's principal objectives and priorities for receipt of financial assistance, determined via a merit-based assessment process. In the

Australian Solar Institute, investment in solar energy research has accelerated market innovation in photovoltaic and concentrating solar thermal technologies, and I would encourage the future ARENA Board to provide adequate funding for solar research to look closely at the Australian Solar Institute's model. I would also encourage the ARENA Board to maintain the investment in solar research so that Australia remains at the forefront of solar energy research and development.

The Australian Solar Institute has already committed $90 million in funding for renewable projects since its establishment and by the end of June 2011, the ASI held a research portfolio with a total project value of approximately $200 million, having attracted more than $115 million of additional funding from domestic and international industry, research institutions and state government. Attracting such a high level of private investment through partnership is a highly commendable performance, and I congratulate the Australian Solar Institute for all that they have achieved.

The establishment of ARENA fortunately should not delay the delivery of existing renewable energy projects and initiatives. The Australian Solar Institute will continue to deliver its existing programs, with ARENA taking responsibility for these initiatives as well as any uncommitted funding when the ASI is wound up by 31 December 2012.

ASI has had a particular funding focus on technologies not yet commercialised, supporting technology that would increase the commercial uptake of solar energy by reducing the lifetime cost of solar-energy production. At CSIRO, this saw funding for projects to develop:

- advanced solar thermal energy storage technologies;
- advanced steam-generating receivers for high-concentration solar collectors;
- solar powered air turbine systems;
- a novel thermoelectric toping cycle receiver for CST applications; and
- to characterise the effect of high penetration solar intermittency on australian electricity networks.

A $5 million foundation grant from the Institute funded Australia's largest solar thermal research hub at the CSIRO Solar Energy Centre in Newcastle. Opened by the Prime Minister in June this year with the Minister for Energy and Resources, the 30 metre high solar tower is located in what has become an international hub for solar research, development and commercialisation, with a particular focus on solar energy storage, high temperature steam generation, solarised fuels and thermoelectric generators. The 450 custom-made mirrors that surround the solar tower are capable of generating temperatures up to 1,500 degree Celsius. Interestingly these mirrors are made on the Central Coast.

The impact of these and other investments into renewable energy will be furthered by the $10 billion Clean Energy Finance Corporation that this Government will establish in order to invest in firms utilising renewable energy, and energy efficient and low-emission technologies, so as to overcome capital market barriers to the commercialisation of clean energy technologies. It is anticipated that by channelling public funding towards environmentally sustainable firms and encouraging private investment, the Clean Energy Finance Corporation will alter the investment-behaviour of the Australian securities industry and foster the uptake of renewable technologies.

Dividends returned from investments made by the Clean Energy Finance Corporation will be administered by ARENA to support the development of renewable technologies.

Mr Speaker, the Secretary-General of the OECD, Ángel Gurría, said earlier this year that '[o]ur economies need a change of engine. … Renewable energies are the only future viable source if we want to protect life'.

The Australian government has developed a long-term plan to transition to a clean energy future, and we are reshaping the energy market through research and development, and the commercialisation of renewable technologies to foster greater environmental sustainability. For what is the market economy but a construct? It does not exist independent of civil society, and through Bills such as these and the Clean Energy Future reform package, we will create an environmentally-sustainable economy by implementing policies that foster investment and provide an incentive for people to use and to generate renewable energy.

We can create a clean energy future while growing our economy, as Sweden has done; the two aren't mutually exclusive. Since 1990, their economy has grown by 50% while reducing greenhouse emissions by 10%. The report of the Australian Conservation Foundation (ACF) and the ACTU, *Green Gold Rush*, concluded that:

> 'ambitious environmental policies have an impressive track record in generating innovation, industry development, job creation and economy prosperity'.

Every Australian knows that our nation has unmatched renewable resources. Wind capacity factors are 5-10% higher on average than in the EU, we have extensive geothermal resources, and we experience longer sunlight hours and more intense solar radiation than many other countries.

Yet a report by Bloomberg New Energy Finance last year ranked Australia twelfth by our installed capacity for renewable power generation. According to Erwin Jackson, the Deputy Chief Executive of the Climate Institute, global 'clean energy investments now outstrip traditional fossil fuel investments year-in, year-out', despite Australia accounting for just 0.8% of total global investment in renewable energy.

We have an energy intensive economy and higher per capita energy consumption than most modern economies such as Germany. Described as the world's first major renewable economy, renewable energy consumption in Germany is predicted to reach 33% by 2020.

We all have a part to play in creating a cleaner economy. This week, *The Newcastle Herald* reported that energy consumption in the Hunter region has decreased by up to 4.6% in the past year, with this energy saving attributed to increased uptake of energy efficient appliances and more energy efficient behaviour.

By creating a long-term funding pipeline for research and development, and the commercialisation of renewable energy through the establishment of ARENA, these Bills will help to make renewable energy a realistic option for the Australian community and I commend them to the House.