



20 October 2011

Mr Stephen Palethorpe  
Committee Secretary  
Environment and Communication Legislation Committee  
Parliament House, Canberra ACT 2600

Dear Mr Palethorpe

**Inquiry into the provisions of the Australian Renewable Energy Agency Bill 2011 and the Australian Renewable Energy Agency (Consequential Amendments and Transitional Provisions) Bill 2011.**

I am writing on behalf of the Australian Centre for Renewable Energy (ACRE) in response to your invitation of 13 October 2011 to make a submission on the provisions of the abovementioned Bills.

**The Australian Centre for Renewable Energy (ACRE)**

ACRE commenced operations in October 2009 with the aim of becoming the Australian Government's central point of contact for support and development of renewable energy and enabling technology in Australia. The primary objective of ACRE is to promote the development, commercialisation and deployment of renewable energy and enabling technologies and to improve their competitiveness in Australia.

Upon ACRE's creation, the Australian Government consolidated a number of existing programs and measures and placed responsibility for their delivery under ACRE's remit. These were:

- Renewable Energy Demonstration Program (REDP) including ACRE Solar Projects\*
- Geothermal Drilling Program (GDP)\*
- Second Generation Biofuels Research and Development Program (Gen 2)\*
- Renewable Energy Equity Fund (REEF)\*
- Advanced Electricity Storage Technologies Program (AEST)
- Wind Energy Forecasting Capability

\* Denotes those programs identified for transitioning to ARENA once established.

Since its establishment in 2010, ACRE has also launched two new programs to support renewable energy technology development, including:

- Emerging Renewables program
- Renewable Energy Venture Capital Fund

The administration of these programs will also be transferred to ARENA once established.

## **ACRE's Approach - *Strategic Directions***

ACRE's earliest task was to develop a framework for its operations. This framework was published in April this year as ACRE's *Strategic Directions* and is the culmination of an extensive consultation process with individuals and organisations from the renewable energy industry sector, state and territory governments, research agencies and other independent bodies. It provides a cohesive policy and funding strategy that considers aspects of program design, opportunities to be gained through collaboration and how to best leverage international investment and technology transfer for Australian benefit.

The challenge of meeting the Government's renewable energy target of 20 per cent by 2020 is a significant one given the costs of current renewable technologies, the high rate of investment required and the challenges associated with integrating intermittent energy sources into our electricity grids. In its *Strategic Directions*, ACRE recognises the critical and enabling role of Government in lowering these barriers to investment, progressing new technologies along the innovation chain and increasing their competitiveness in the energy market.

Principally, *Strategic Directions* establishes ACRE's recommended approach to Government support for renewable energy technologies and outlines ACRE's technology focus and priority areas, taking into account the current state of play for various renewable energy technologies, both in Australia and globally, as well as emerging trends over the horizon.

It is anticipated that ACRE's *Strategic Directions* will provide an important input to the development of ARENA's Funding Strategy, given the strong alignment between the functions of ACRE and ARENA as described under the provisions of the *Australian Renewable Energy Agency Bill 2011*.

## **Challenges and Lessons Learned**

Like many countries, Australia faces a number of challenges in the development and deployment of renewable energy technologies, including:

- a lack of experience in deploying, adapting, designing and constructing large scale energy generation from renewable sources (due in part to a national shortage of engineers); and
- a lack of private sector capital for equity funding, technology commercialisation and project finance for pilot plants, based on a wariness to invest in what is regarded as an unattractive investment class due to its high risk/return profile.

There is an important role for government in providing education and training opportunities to ensure that the renewable energy sector has a workforce capable of supporting a shift to more clean energy. This includes both the research capacity to develop new technologies and also the engineering capabilities to adapt, scale-up and project manage clean energy production facilities. ACRE considers this to be one of the key challenges facing the Australian Government and one of the most important enabling functions it can perform in supporting a shift to renewable energy.

Government also has an important role to play in addressing the gap in early-stage capital in Australia. While the Government's Carbon Pricing Mechanism, Renewable Energy Target and commitment to support for clean energy technology development (e.g. ARENA and the Clean Energy Finance Corporation) make a substantial contribution to overcoming the barriers to technology development, more needs to be done in terms of "proving up" Australian resources

and technologies to lower both the real and perceived investment risk associated with the renewable energy sector.

ACRE also recognises that particular technologies within the renewable energy sector face unique challenges. In response to issues faced by the geothermal energy sector, ACRE developed its Geothermal Directions in consultation with a Geothermal Expert Group, chaired by Professor Robin Batterham, which provides a roadmap for the way forward for the geothermal industry. This work will be made available to ARENA as an input to the development of its Funding Strategy and Work Program.

### **Emerging Renewables program - A new approach to flexible and integrated funding support**

The Minister for Resources and Energy, the Hon Martin Ferguson AM MP, launched ACRE's *Emerging Renewables* program on 8 August 2011. This delivered on a key recommendation made in its *Strategic Directions* to consolidate remaining ACRE funding to establish a flexible and integrated funding program with greater longevity.

The challenge for ACRE in designing this new funding program was to provide a more flexible approach with the potential to consider a broad range of renewable energy technology projects and measures, without a specific set of criteria for each technology sector. The new program also needed to be able to consider technologies at various stages along the technology innovation chain and to take account of the risks that companies encounter at each stage.

A key feature of the *Emerging Renewables* program is the outcome-oriented approach being adopted in assessing applications, with funds prioritised on a 'best value' basis consistent with the ACRE technology priorities and strategic objectives described in the ACRE Strategic Directions.

The administration of this program will transfer to ARENA upon its creation in July 2012. The flexible and innovative design adopted by the program will ensure it is able to support ARENA in performing its statutory functions.

### **Collaborative Framework for Engagement on Renewable Energy**

One of the key remits of ACRE is to collaborate with state and territory governments to advance the deployment of renewable energy technologies. To progress this in 2010 the Board invited each state and territory to nominate a representative to be part of an ACRE Network.

At its most recent meeting in August this year, the ACRE Network identified the need for a national approach to supporting the development of renewable energy technologies that recognised synergies between state and national government efforts and reduced cross-jurisdictional competition to achieve national benefit.

The ACRE Network agreed that a ministerially-endorsed collaborative framework for engagement on renewable energy should be explored as a potential mechanism to secure the commitment required for candid and reliable exchange of information between jurisdictions and the Australian Government for robust decision making.

ACRE notes that the *Australian Renewable Energy Agency (ARENA) Bill 2011* describes two of ARENA's core functions 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".* A collaboration framework for enhanced jurisdictional engagement would be an important input for ARENA Board consideration in supporting the performance of these functions.

ACRE is working with the Department and the Australian Solar Institute to assist with an orderly transition to ARENA. The CEO and I, among others, are actively participating in the ARENA Steering Committee and look forward to contributing to the establishment of ARENA over the coming months.

Thank you again for the opportunity to provide a response to this inquiry on behalf of ACRE. I would be happy to respond to any request for further detail or clarification regarding this submission in writing.

Yours sincerely

Mary O'Kane