AUSTRALIAN
CONSERVATION
FOUNDATION
INCORPORATED ABN 22 007 498 482

SUITE 504, 32 YORK STREET **SYDNEY NSW 2000**
phone ■ **02/ 8270 9900**// facsimile ■**02/ 8270 9988**
email ■ **acf@acfonline.org.au** // web ■ **acfonline.org.au**

Submission No: 69

16 June 2007

Committee Secretary
House of Representatives Standing Committee on Industry and Resources
PO Box 6021
Parliament House
CANBERRA ACT 2600
Ir.reps@aps.gov.au (by email)

Dear Mr Chafer

Thank you for the invitation to provide a submission to the Committee's second case study examining the relative state of development of selected renewable energy sectors in Australia.

Instead of our energy generation being dominated by coal fired power, Australia could become a world leader in safe, clean energy. Renewable energy now meets 19 per cent of global electricity demand and countries around the world are setting targets for energy from clean, renewable sources such as solar, wind and geothermal. California has set a renewable energy target of 33 per cent by 2020 and China 15 per cent by 2020. Yet in Australia, where we have outstanding renewable resources like solar, a modest 8 per cent of our power comes from renewables.

In order to become a world leader in renewable energy technologies, the ACF believes Australia must legislate a mandated renewable energy target of 25 per cent by 2020, provide additional targeted support through a solar feed-in tariff, implement policies to massively increase the uptake of solar hot-water systems, and substantially increase funding for R&D innovation.

MANDATING A RENEWABLE ENERGY TARGET

Governments around the world are increasingly realising that establishing legislated targets for renewable energy is the most effective way to drive a shift in investment towards clean, renewable energy projects. This creates new related industries and jobs, drives down the price of renewable energy and reduces greenhouse gas emissions. Any scenario for deep cuts in greenhouse pollution involves renewable energy growing rapidly to deliver a large share of electricity needs.

Our recently released report, *A Bright Future: 25% Renewable Energy for Australia by 2020*, a copy of which is attached, showed that a 25 per cent renewable electricity target by 2020, with medium energy efficiency measures, would conservatively deliver:

- 16,600 new jobs,
- $33 billion in new investment,
- 15,000 MW new renewable capacity,

- 69 million tonnes reduction in electricity sector greenhouse emissions (almost as much as the total emissions from road transport), and
- Enough renewable electricity to power every home in Australia.

The simplest mechanism for achieving 25 per cent renewable energy by 2020 would be to increase and extend the current Mandatory Renewable Energy Target (MRET) program.

The current MRET will not result in any increase in the proportion of energy that Australia gets from renewables.[1] Failure to increase the MRET will mean that by the end of 2007 it will no longer be driving new investment in renewables – because the MRET target will have been met.

Fostering exports and new jobs

Europe, California and China are all investing heavily in renewable energy technologies and generation. Australia should be fostering renewable energy businesses and helping them export their technologies and expertise to the rapidly growing markets overseas. Without support, we are likely to see more home-grown renewable energy businesses (like Solar Heat & Power) relocate to greener pastures overseas.[2]

More than 17,000 Australians are already employed in renewable energy or energy efficiency, despite the lack of government support for these industries. A 25 per cent renewable energy target would increase the number of clean energy jobs to over 33,000.

Detailed analysis shows a renewable energy installation like a wind farm creates twice as many jobs over its lifetime as a coal fired power plant.[3]

How much extra will renewable energy cost consumers?

With a 25 per cent renewable energy target, our electricity prices would remain among the cheapest in the world. Current projections for rising electricity use could see average household electricity bills increase by $234 per year. A 25 per cent target, with medium energy efficiency measures, would add around $64 per week to the average annual household electricity bill, or $1.25 per week.

---

[1] The MRET guaranteed 9500 GWh of new renewable energy generation by 2010, which at the time was equivalent to a 2 per cent increase in renewable energy contribution. Unfortunately higher than expected growth in electricity consumption means this is effectively a 'stand still' target. In 1997, Australia got 10.5 per cent of electricity from renewable energy. In 2010, even with the additional 9500 GWh of renewables, we will still get only 10.5 per cent from renewables.

[2] In January 2007, Solar Heat and Power Pty Ltd announced that it would move its headquarters to California. A US investor had just put $42 million into the company.

[3] Passey (2003) Driving Investment, Generating Jobs: Wind Energy as a Powerhouse for Rural and Regional Development in Australia", A report for the Australian Wind Energy Association.

It should also be noted that the proportion of household expenditure on electricity has been decreasing and is likely to fall further. In other words, electricity bills are becoming smaller for Australian households relative to expenses such as telecommunications, rent and mortgage payments. As the size of the renewable energy sector grows and new more efficient technology (such as solar sliver cells) is made commercially available, the cost of renewable power will come down.

Comparing our residential electricity prices with and without a 25 per cent target with other countries around the world a 25 per cent target would increase prices by less than half a cent per kilowatt hour by 2020, still well below international average.

What would 25% renewable energy mean on the ground?

Electricity use is projected to rise by 2 per cent per year,[i4] and peak demand by up to 3.6 per cent.[5] Using a medium energy efficiency scenario, electricity consumption would be 290,000 GWh in 2020 so the 25 per cent target would mean 72,500 GWh would come from renewable energy. Current renewable energy generation is 18,300 GWh so this is an increase of 54,200 from current levels. The additional renewable electricity would be equivalent to the output of nine coal-fired power stations and enough to supply every home in the country.

ADDITIONAL TARGETED SUPPORT FOR RENEWABLES

Additional mechanisms should be introduced to promote renewable energy technologies that have co-benefits. In particular:

- A 'feed-in-tariff' should be introduced to support electricity produced by solar photovoltaic systems, community-owned wind farms and emerging technologies such as tidal power[6];
- Uptake of household solar photovoltaic and hot water systems should be supported by rebates and an 'install now, pay later' government finance scheme, and
- Provide more innovation funding to help universities and other research institutions invent and commercialise renewable energy technologies.

Australia can make much greater use of renewable energy. However, if renewable energy R&D is not supported in Australia then renewable energy technology will largely be imported, with negative consequences for Australian jobs, Australian investment and Australia's balance of payments. It will be harder to argue against the proposition that responding to climate change by using renewable energy will cost jobs.

---

[4] Australian Bureau of Agricultural and Resource Economics (2006) Energy in Australia 2005, ABARE, Canberra, p42

[5] NEMCO (2006), Statement of Opportunities 2006, NEMCO, Victoria.

[6] Tidal power is in earlier stages of development but some exciting pilot projects are under way in Port Kembla, NSW, and Fremantle, WA.

Funding renewable energy R&D and education feeds forward into renewable energy commercialisation within Australia.

Dedicated funding for renewable energy R&D has been largely absent until recently. The Energy R&D Corporation and the Australian CRC for Renewable Energy have closed. The Australian Greenhouse Office never funded renewable energy R&D. The various state government funding schemes, including those of the public electricity utilities, also closed down. The Renewable Energy Development Initiative is not available to Universities. LETDF, RRPGP, PVRP, Solar Cities and other programs do not support R&D. AP6 funding is welcome, but will expire during 2007.

Australian Government investment in renewable energy would pay huge dividends through the generation of intellectual property that can be then exported by way of licenses and high value manufactured goods. This strategy will generate high value manufacturing and employment in Australia that takes advantage of the nation's investment in skills and innovation.

If you would like further information, please contact me

Kind regards
Monica Richter
Sustainability Programs Manager

The Australian Conservation Foundation is committed to achieve a healthy environment for all Australians. We work with the community, business and government to protect, restore and sustain our environment.
www.acfonline.org.au

---

[i] Australian Bureau of Agricultural and Resource Economics, (2006, p. 42), Energy in Australia 2005, Australian Bureau of Agricultural and Resource Economics (ABARE), Canberra.