



# Submission to Standing Committee on Environment and Communications References Committee: Inquiry into the Government's Direct Action Plan.

Friday January 17, 2014

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Dear Committee members,

The Clean Energy Council (CEC) works with more than 550 solar, wind, energy efficiency, energy storage, bioenergy, hydro, cogeneration, geothermal and marine energy businesses to accelerate the transformation of Australia's energy system into one that is smarter, cleaner and more consumer-focused.

The CEC welcomes the opportunity to make a submission to the Standing Committee's consideration of the Direct Action Plan (DAP). At this stage the final details of many of the DAP's programs are still being developed in consultation with stakeholders such as the CEC and therefore, at this stage, we can only speak in broad terms about what the effect of those initiatives might have.

## **The importance of the Renewable Energy Target to Direct Action**

The DAP will be the centre piece of much of Coalitions strategy to achieve the greenhouse gas reductions that Australia has made a legally binding commitment to under the framework of the UN Framework Convention on Climate Change.

The level of abatement required by the DAP to achieve those targets will be influenced by a number of factors, but arguably the largest of which is the Renewable Energy Target (RET). The RET is Australia's largest and most effective carbon abatement policy, as well as being a very effective policy for stimulating investment in new generation capacity.

Analysis for the CEC<sup>1</sup> has shown that between 2001 and 2012 the RET was responsible for 22.5 Mt CO<sub>2</sub>e emissions reduction, and that without the RET Australia would not have met its reduction target under Kyoto. The analysis shows that alongside the emissions reductions the RET also delivered a number of other benefits including:

- \$18.5 billion of investment in renewable energy infrastructure
- Wholesale energy prices are as much as \$10/MWh lower as a result of the RET being in place

Looking forward the analysis concluded that between 2012 and 2013:

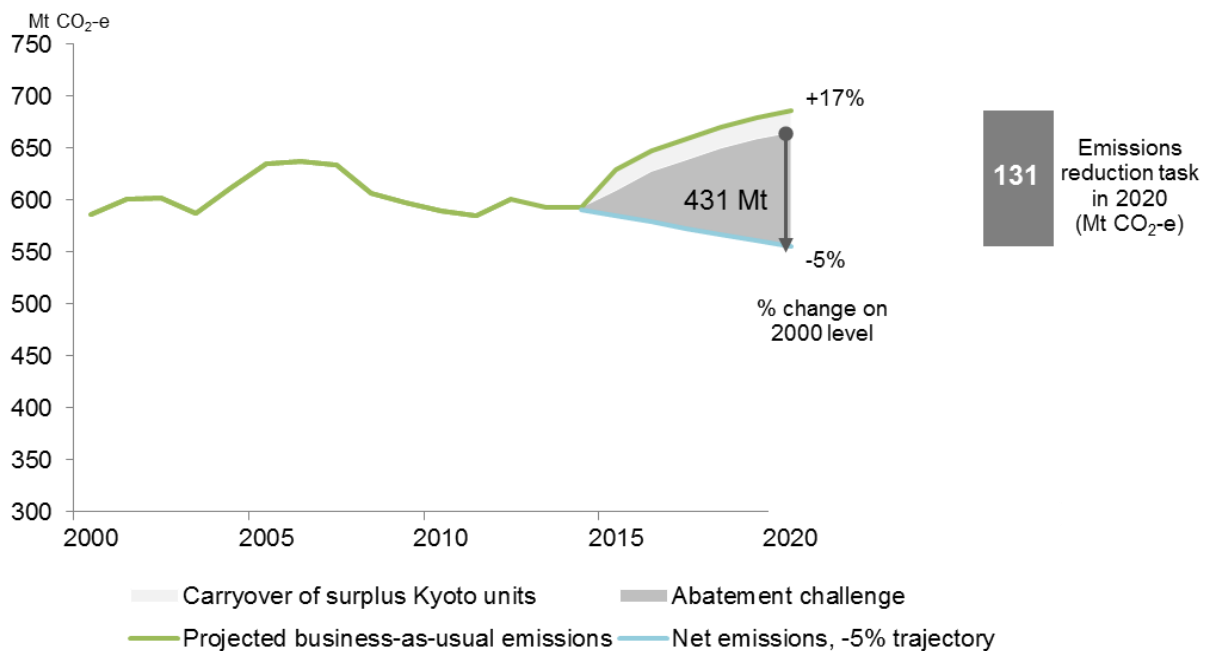
- the RET is expected to deliver an additional \$18.7 billion of investment in renewable energy infrastructure.
- Wholesale energy prices are expected to be up to \$9/MWh lower with the RET in place.
- 1000 MW less gas fired generation capacity is expected to be required with the RET in place
- Generation from gas-fired power stations is expected to be 13% less with the RET in place
- Generation from coal-fired power stations is expected to be 12% less with the RET in place

These ongoing benefits are contingent on the RET being retained in its current form, and in particular that the 41,000 GWh target remains. As well as the target remaining intact it is also important that there is an end to the constant reviews of the RET. The RET has undergone regular and substantial reviews since it was first designed in the late 1990s. The 20 per cent target was legislated in 2009 and enhanced in 2010. This was followed by a legislated review of the scheme in 2012, and an expected review of the scheme in early 2014. Each review creates uncertainty and results in a slowing or deferment of investment in renewable energy.

To provide a stable investment climate for renewable energy the CEC believes that the upcoming review should be the last review of the scheme until 2020. This will enable the industry to get on with the job of deploying the renewable energy necessary to meet the 20 per cent by 2020 target.

From its inception to completion, the RET is expected to be responsible for up to 380 Mt CO<sub>2e</sub> of carbon abatement. This would be a very significant contribution to the remaining abatement needed to achieve the 5 per cent reduction target between now and 2020 using the latest departmental estimates.

**Figure 1: Australia's abatement task to 2020<sup>2</sup>**



### **How might direct action work?**

There are a number of parts to Direct Action and the next section considers some of the core elements in turn.

### **The Emissions Reduction Fund.**

The Emissions Reduction Fund (ERF) is more than simply a fund that offers financial support; it also has elements of a 'baseline and credit' scheme for managing emissions.

The Coalition has consistently said that the ERF will offer funding to businesses for specific actions so long as the activity also meets five goals:

- Reduces greenhouse emissions,
- Delivers other 'practical' environmental benefits,
- No cost increase to consumers,
- Protect Australian jobs,
- *Would not otherwise proceed without the assistance of the ERF (additionality test)*

<sup>2</sup> Department of Environment, Australia's Abatement Task, 2013, <http://www.environment.gov.au/resource/australias-abatement-task-fact-sheet>

The interaction between these goals is not always easy to manage and for the ERF to work effectively we believe careful consideration also needs to be given to ensuring that the purchasing of credit will operate to avoid boom/bust cycles. The mechanism through which the Government purchases carbon credits through the ERF will be critical to managing this risk.

There are indications that the Government prefers a reverse auction model, potentially at specific intervals (e.g. monthly, annually). Alternatively, there could be a rolling program whereby companies approach government whenever they have a project that could generate abatement credits.

In this context the implications of a strict 'least cost abatement' approach to assessing projects also need to be considered. Some activities, like energy efficiency, might come to dominate the program and reduce the level of diversity in activity that would most likely be needed in order to achieve a balanced approach to emission reduction across the economy.

In addition, it would be unfortunate if the community missed the opportunity to gain the indirect (non-carbon) benefits of distributed generation, such as greater competition in the energy market, avoided investment in network infrastructure and greater reliability for consumers, simply because these benefits are not fully encapsulated within narrow 'cost of abatement' metric.

We already know that multi-year abatement contracts will be feasible. However, it will be important to define early on how these can best be constructed to give industry the confidence it needs to bid.

Issues that we believe will need to be considered include;

- Is the maximum length of contracts enough sufficient to allow for reasonable payback periods and to get commercial financing for projects?
- Will there be any interim payments made for multi-year projects?
- How onerous and expensive will the abatement verification processes be?
- What happens if the cost to deliver projects changes over time in ways that could not be anticipated when the original bid was made?
- Conversely, avoiding optimism bias. This is the tendency for bidders to be unrealistic about their likely costs.

In addition to the mechanics of the auction process, there are other important considerations to take into account, particularly in relation to the additionality test built into the goals of the ERF.

***Market failure should be an acceptable criterion for additionality.***

Funding from the ERF may well overcome the most obvious barrier to a project being undertaken – commercial viability, but investment in many technologies, particularly in the field of energy saving, can also be limited by the classic 'market failures' such as 'information asymmetry' (decision makers lacking the necessary information to act), 'split incentives' (the decision maker being separate to the beneficiary of the action) and 'bounded rationality' (cognitive limitations on the ability to make optimally rational decisions – such as balancing short term costs and long term benefits), that prevent net economically beneficial projects from going ahead. Therefore, the requirement that projects not be supported by the ERF unless that project *would not otherwise proceed without the assistance of the ERF*, should be interpreted broadly to include the full range of market failures that inhibit investment.

**Abatement directly transfers between liable parties would improve the ERF.**

Trading of abatement directly between project owners and liable parties can reduce the financial pressure on government to be the only source of funding to projects, and allows for a stronger mechanism for determining the price of abatement.

In keeping with the concept of direct action, the government could act as a purchaser of last resort, but with the market managing much of the creating and surrender of abatement credits. In doing this a government could facilitate the transfer of abatement credits to parties with an outstanding liability so long as the transfer occurs at lower cost than the penalty price. In this way the ERF could operate similarly to the clearing house component of the Small scale Renewable Energy Scheme (SRES).

**Supporting action by the community..**

Hundreds of thousands of Australian households and businesses are now voluntarily buying some GreenPower for their own needs and in doing so are providing a benefit to the community at large.

Reducing emissions is the core task of direct action, so we need to encourage consumers to build on schemes like GreenPower by capturing their full impact within the ambit of Direct Action.

**One Million Solar Rooves**

The Million Solar Rooves (MSR) scheme is understood to be a rebate scheme for small scale solar technologies. The former Renewable Energy Bonus Schemes (REBS) was a good example of a very effective rebate scheme for supporting solar hot water, and that mechanism (expanded to other technologies such as solar PV) could be a basis for the MSR program.

Our preference is for the MSR scheme to focus on expanding access to solar technologies in those parts of the community that have had only limited opportunity to benefit from them so far.

In the case of solar PV, particularly low income families, including those in the rental market or those in public and social housing are under-represented. While for solar hot water, the relatively high up-front cost of systems deters most consumers, even though pay-back periods over the life of the appliance make the technology attractive.

Solar systems would be more accessible to low income owner-occupier households and renters if the Million Solar Rooves rebates are structured to allow financial support for:

- Households wishing to lease systems as well as those who are in a position to buy;
- Large multi-unit residential buildings; and
- Landlords who want to install solar systems on houses rented to low income families.

Similarly, assisting with the installation of solar PV in off-grid areas and on community or commercial buildings are other gaps in the current market which could be targeted by the Million Solar Rooves program.

It will also be important to ensure that appropriate steps be taken to ensure that the systems installed under the Million Rooves plan are good quality systems. For example, it could be a condition of funding that the participating solar PV retailer must be a party to the CEC's Code of Conduct for Solar Retailers.

### **Solar Hot Water**

Solar hot water systems (including heat pumps) offer significant scope for to lower household energy bills as a result of their high levels of energy efficiency.

A number of options exist here including;

- Reinstating the Commonwealth's Renewable Energy Bonus Scheme (REBS) as a broad based, point of sale rebate;
- Bulk purchases for public or social housing;
- Tiered rebates for landlords installing systems in rental properties.

A smart combination of the above would enable to a widest possible segment of the community to gain the benefits of solar water heating

### **Other Technologies**

#### **Solar Cooling**

The growth in air conditioning systems is widely regarded as probably the single biggest driver of rising electricity prices in recent years.

Energy efficient cooling should be a priority and would have broad community benefits, and is an obvious candidate for inclusion in the Million Solar Roofs program.

There are now several different types of cooling technology (broadly categorised as closed or open cycle systems) which are technically proven but are not widely deployed in Australia due to their cost and a lack of awareness.

#### **Energy storage**

We are increasingly seeing households and off-grid communities investing in energy storage systems.

Diverse in scale and mechanics, (pumped hydro, compressed air and various types of battery storage to name but three) and at different points in the technology development cycle, energy storage systems each interact with the system at different points (household, distribution, transmission, etc) and have very different cost structures.

However, a rebate could well bring a significant number of new consumers into the market. Energy storage systems coupled with existing or new solar PV systems could have a number of community benefits, reducing peak demand pressures, improving power quality and reliability and lowering the emissions intensity of our energy supply,

#### **Improving the work of ARENA**

Although it is obviously an existing program, it is worth briefly discussing the work of Arena because it will play an important role in the development of the clean energy industry and the achievement of government emissions reduction targets. There are a number of ways in which the administration of ARENA could be enhanced to increase the level of benefit the community, and to the industry, more broadly.

One overall priority is to ensure that the industry has visibility of ARENA's strategic imperatives so that appropriate consultation can be conducted but also to avoid costly duplication or inappropriate submissions for support being made.

In terms of guiding principles and purposes of ARENA, it will be important there is an active focus on

- A good deployment pipeline (meaning multiple projects across multiple years);
- A steady and bankable policy framework;
- Project selection based on robust assessment screening and viability criteria;
- Projects that complements ARENA's existing commitments.

And that there are clear criteria for judging what success looks like.

We would suggest the criteria are;

- How far has project risk been offset so that for private investment comes in the near-term and cost of finance is reduced;
- How far is the development reducing peak demand of the system of having other such beneficial impacts;
- Have local skills and experience been increased in the development and construction of large scale projects, driving down deployment costs;
- Have the true project costs (finance, grid connection, permitting, construction, operational costs, etc.) been fully identified (in the local context);
- Is the project size and scheme economics optimal within the Australian market;
- Is the cost competitiveness of the technology within Australia being improved;
- Is knowledge and experience in resource assessment and forecasting increasing,
- Is the support contributing to diversifying Australia's renewable energy mix.

Yours sincerely,

**Tim Sonnreich**

Strategic Policy Manager