



Improving the RET and CPRS

Suggested Legislative Amendments to the Rudd Government's *Renewable Energy Target* and *Carbon Pollution Reduction Scheme* Policies

Key Points:

1. Climate change is a society wide problem that requires action by all sectors of society to drive a transition to a safe climate.
2. The current draft *Renewable Energy Target (RET)* and *Carbon Pollution Reduction Scheme (CPRS)* Bills discourage voluntary action to reduce emissions by individuals and communities.
3. The new *Solar Credits Scheme* has the potential to undermine Australia's *Renewable Energy Target* unless amended.

Recommendations:

1. Increase the annual mandatory targets under the RET in line with the amount of multiplied Renewable Energy Certificates (RECs) created under the *Solar Credits Scheme*.
 2. Ensure all GreenPower purchases (including current and past GreenPower purchases) further tighten CPRS caps / Kyoto units within 12 months of purchase.
 3. Establish a separate Voluntary Market within which accredited voluntary actions such as installing roof-top solar panels, retrofitting buildings and purchasing carbon off-sets can be accounted for and further tighten CPRS caps.
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1. Introduction

The Federal Government's Renewable Energy Target (RET) and Carbon Pollution Reduction Scheme (CPRS) Bills are expected to be put to a vote during the August sitting of Federal Parliament. It is particularly important that the RET legislation is passed as quickly as possible given that the investment community and renewable energy industry are waiting for a price signal to invest in renewable energy projects.

However as representatives of communities and individuals seeking to make a positive difference regarding the issue of climate change, Environment Victoria (EV), the Moreland Energy Foundation (MEFL) and the Alternative Technology Association (ATA) are concerned by a number of flaws and missed opportunities in the current design of both the RET and the CPRS that we would like to see rectified before the Bills come to a vote in the August sittings.

Currently both the RET and the CPRS provide disincentives to communities and individuals to engage with the climate change issue through investment in renewable energy and other forms of voluntary action on climate change.

Government, business, industry and the community all have important roles to play in Australia's action on climate change. Given the size of the challenge to prevent runaway climate change, and the urgency with which we must act given the latest scientific evidence, Australia will not reach the scale of action required unless all sectors play their part.

Environment Victoria, MEFL and the ATA are strongly of the view that a critical part of a successful response to Australia's commitment to tackling climate change is community engagement. Our communities must be involved in various aspects of climate action including community education, targeted programs to assist communities adjust to levels of climate change that are now unavoidable, responses to extreme weather events and emergency situations, as well as through positive action to reduce their emissions. Indeed, millions of Australians have already taken up this challenge and have acted to reduce their greenhouse emissions through behaviour change, retrofitting, appliance upgrades and investment in renewable energy.

Further, state and local government jurisdictions have been actively involved in preparing the community for climate change, and reducing emissions for their communities. Numerous local council authorities across the country have already committed to achieving zero net carbon emissions by 2020. Policies are required that provide incentives for communities and individuals to undertake voluntary action and that recognise their efforts for doing so.

Unfortunately, the proposed CPRS in its current form ignores the hard work and investment of communities and individuals to reduce emissions and will discourage further efforts on climate change from the community, effectively barring them from participation in Australia's response to the climate challenge.

In addition, the *Solar Credits Scheme*, as a component of the RET legislation, has the ability to distort the level of additional renewable energy achieved via the RET mechanism and the potential to undermine investment in large scale renewable energy. This situation will act as a disincentive for investment in solar photovoltaic power or small scale wind by individuals, community groups, local government etc. who wish to add to Australia's renewable energy generation. These individuals and communities would be discouraged by the knowledge that their investment would actually reduce Australia's total amount of renewable generation by 2020, and undermine investment in large scale technologies.

There is still a chance to protect the role of community engagement in both the RET and CPRS legislation. Environment Victoria, MEFL and the ATA urge all parties to amend these Bills to enable voluntary community participation in action to reduce greenhouse emissions, and to ensure that Australia actually meets the proposed RET of 20 percent by 2020 while also providing a real incentive for investment in small scale renewable energy.

2. The RET and the *Solar Credits Scheme*

Ahead of the 2007 Federal election the ALP promised that:

'As part of Labor's 2020 vision for a clean renewable energy future, Federal Labor will:

- *Increase the Mandatory Renewable Energy Target (MRET) to 45,000 GWh to ensure that together with the approximately 15,000 GWh of existing renewable capacity, Australia reaches Labor's 20 per cent target by 2020.'*¹

However the proposed *Solar Credits Scheme*, introduced in 2009 as part of the RET, threatens to undermine achievement of the above policy commitment. The *Solar Credits Scheme* provides the opportunity for investors in small scale renewable energy technologies such as solar photovoltaic (PV) and micro-wind turbines (MWT) to create and trade five times the amount of Renewable Energy Certificates (RECs) for every mega-watt hour (MWh) of electricity generated.

As the majority of RECs created by owners of small generation units are traded through the spot market, these RECs will likely be purchased by electricity retailers in line with their requirements under the annual targets of the RET (increasing annually up to 45,000 GWh by 2020). This is intended to act as a financial incentive for investment in solar panels and small-scale wind, as the RECs traded by owners of small scale generators will help offset the cost of purchase and installation.

Whilst eligible generators under the *Solar Credits Scheme* will be offered five times the amount of RECs, they will not generate five times the amount of renewable electricity. This means that anyone installing an eligible small generation unit will be reducing the amount of additional renewable energy produced under the RET by four times the size of their system. Accordingly, this will detract from additional investment to the large scale renewable energy sector.

2.1 Small Generation Units in the REC Market

The contribution of small scale renewable energy to the RECs market has been relatively insignificant until now. In 2008, 4.6% of the total number of registered RECs were created by small generation units (predominantly solar PV).^{2 3}

¹ ALP, Labor's 2020 target for a renewable energy future, pg. 2

http://www.alp.org.au/download/now/071030_renewable_energy_policy_xx.pdf

² Figures obtained via a search of the *Register of Renewable Energy Certificates* [Online at: <https://www.recregistry.gov.au/getSearchPublicRecHoldings.shtml>]

³ The ORER defines a solar SGU as any system up to 100 kW in size whilst a wind SGU is defined as up to 10 kW in size. However, given the substantial investment in small scale solar PV in 2008 driven by the \$8,000 means tested federal rebate, it is reasonable to assume that a significant proportion of the SGU RECs created in 2008 would have been from small scale solar PV systems.

However, had the *Solar Credits Scheme* multiplier been in existence in 2008, the share of RECs generated from small generation units could have accounted for more than 19% of the total REC pool, resulting in 15.5% of all RECs created (i.e. up to 1.48 million RECs out of a total of 9.5 million) not representing actual renewable generation.

A 15% shortfall in RECs making up the Renewable Energy Target is significant. At the current REC price of approximately \$36, this represents over \$50 million of investment not actually going towards additional renewable generation (and potentially into larger scale projects).

With the recent closure of the *Solar Homes and Communities Plan* (and the \$8,000 subsidy to solar households), the projected uptake of small scale renewables is uncertain. Whilst the *Solar Credits Scheme*, coupled with the introduction of state-based *feed-in tariffs* represents at least a 50% reduction in the financial support provided to small scale renewable energy investors, the increased awareness of, and appetite for solar power from the community coupled with significantly increased marketing and promotion from the solar industry seen recently means the potential is still there for uptake to continue at a level that significantly distorts the RET.

2.2 Potential Impact on the RET

A recent publication⁴ by the investment research firm UBS concluded that the installation of 10,000 solar PV systems per year had the potential to take up 79% of the additional RECs incentivised through the expanded RET (see **Table 1** over page). 10,000 systems per year is not unachievable in the context of the new *Solar Credits Scheme* (coupled with feed-in tariffs) given that PV is falling in price and PV installations were tracking at approximately 2 – 3,000 per year nationally⁵ prior to 2007 (i.e. when the Solar Homes and Communities Plan offered a \$4,000 rebate and with no feed-in tariffs in place).

Further, given that approximately 20% of all RECs created since the inception of MRET continue to be sourced from solar water heaters (and recently significantly more)², together these have the potential to shut out the majority of additional investment into larger scale renewable energy for the life of the *Solar Credits Scheme* (i.e. 2009 – 2015). We maintain our view (as put forward through various MRET related submissions) that solar water heaters should be incentivised separately from the expanded RET, with this mechanism being retained purely for renewable electricity generation.

⁴ UBS Investment Research, 2009. '*REC prices likely to be soft*'. UBS Securities Ltd, Australia.

⁵ Department of Environment, Water, Heritage and the Arts, 2009. '*Solar Homes and Communities Plan – Program Statistics*'. [Online at: <http://www.environment.gov.au/settlements/renewable/pv/index.html>]

Table 1: PV Solar RECs to Dominate Near Term?

kw per installation	1.5	1.5	1.5
Installations per year (000's)	10	20	30
Lifetime RECs per installation*	150	150	150
Solar RECs per year (million)	1.5	3.0	4.5
% of 2010 – 2012 demand	79%	158%	237%

* 20 RECs per KWh at 5x multiplier

Source: UBS estimates³

There can be little doubt that the main motivation of most people installing small generation units is to increase the quantity of renewable energy installed in Australia for the environmental benefits that it brings. A 2007 survey by the ATA of over 1,300 individuals' motivations for installing solar PV found that 78% cited the desire to have a positive impact on the environment⁶. Equally, it is a valid assumption that these investors do not want their investment undermining investment in large scale renewable energy and/or the achievement of Australia's increasing renewable energy annual targets.

2.3 Fixing the RET

Going forward, Environment Victoria, MEFL and the ATA strongly believe that the *Solar Credits Scheme* in its current form has the potential to negatively influence the renewable energy market in Australia and to build cynicism within the community in regards to the Government's commitment to renewable energy and climate change.

On this basis, we call upon the Federal Government, the Opposition and all other parties to redress this issue by ensuring that the annual mandated targets placed on electricity retailers by the RET are increased (i.e. beyond what is currently proposed under the draft legislation) in line with the amount of multiplied RECs that are traded through the RECs market from small generation units, from the commencement of the scheme until 2015. In this way, the annual targets achieved under the RET and additional investment to the renewable energy sector will not be undermined.

Recommendation:

1. Increase the annual mandatory targets under the RET in line with the amount of multiplied Renewable Energy Certificates (RECs) created under the *Solar Credits Scheme*.

⁶ ATA (2007) *The Solar Experience - PV System Owners' Survey* [Available online at: <http://www.ata.org.au/projects-and-advocacy/solar-system-owners-survey>]

3. GreenPower and the CPRS

Once again, as representatives of communities and individuals seeking to make a positive difference on the issue of climate change, Environment Victoria, MEFL and the ATA are highly concerned by the inability of the CPRS to respond promptly and transparently to voluntary action by individuals, communities, businesses or governments – particularly where that action is clearly measurable, verifiable and additional to any mandated government targets or price signals. Environment Victoria, MEFL and the ATA believe this to be an inadequate design feature of the CPRS that will disempower individuals and local communities wishing to be directly engaged in the climate change challenge and will ultimately build cynicism toward the CPRS more generally.

3.1 GreenPower – Motivations and Potential

ATA has conducted specific research with its members in regards to their motivation for taking voluntary action such as installing solar PV systems and/or purchasing GreenPower. Ultimately, there is little doubt that the main motivation of most people undertaking these activities is to make a difference with respect to Australia's overall emissions profile.

In addition to the *PV Owner's Survey* mentioned above, a 2009 survey⁷ of 520 ATA members who currently purchase GreenPower found that 93% stated that either their *primary* reason, or one of their main reasons for doing so was to reduce carbon emissions. The 2009 survey also found that 33% of respondents who already purchased GreenPower would cease doing so if it did not make a difference to Australia's overall net emissions⁸. A further 49% of those who were considering purchasing GreenPower stated that they would not do so should their efforts not make a difference.

The potential of voluntary action through GreenPower in the energy market is significant. Investment in GreenPower by end consumers has grown consistently since program inception and substantially in the past four years⁹. Annually, GreenPower sales to end-consumers grew by 50% in both 2005/06 and 2006/07 (based on quarter three figures). In 2007/08, GreenPower sales grew by 86%. At an average uptake rate of the past three years (i.e. 62%), GreenPower would represent almost 30% of all renewable energy sales by the end of 2012 and achieve an additional 6,500 GWh of renewable energy investment. This is significant investment in clean energy that is now potentially threatened on the basis that one of people's primary motivations for investing (i.e. to reduce emissions) cannot be satisfied.

⁷ ATA (2009) *GreenPower Motivation Survey*. Unpublished, ATA Melbourne

⁸ Given that Australia has ratified the Kyoto Protocol, an argument can be made that current voluntary action such as GreenPower purchases do not positively affect Australia's aggregate emissions profile. We would strongly argue that the community's awareness and understanding of this issue has grown significantly since the policy process and subsequent public debate regarding an emissions trading scheme commenced and has led to greater consideration of the role of voluntary action over the past two years.

⁹ National GreenPower Accreditation Program (1999 – 2008) Quarterly Status Reports. NSW Department of Water and Energy. [Available online at: <http://www.greenpower.gov.au/our-audits-and-reports.aspx>]

3.2 The 2009 Baseline

In response to advocacy by several groups on the treatment of GreenPower, the Department of Climate Change has recently proposed that additional GreenPower purchases be formally recognised in the targets and trajectories of the CPRS. The two key aspects of this new policy are:

- The introduction of a 2009 baseline – this ensures that only purchases above an average MWh baseline for 2009 can influence CPRS scheme caps; and
- A five year delay prior to the tightening of CPRS scheme caps based on additional GreenPower purchases (i.e. additional GreenPower purchased above 2009 levels in 2010 cannot affect scheme caps until 2015/16).

Both of these approaches are of significant concern to EV, MEFL and ATA. Firstly, the introduction of the 2009 baseline means that existing GreenPower customers cannot achieve a positive outcome with respect to emissions reduction from their purchase. As of March 2009, there were 984,024 GreenPower customers, meaning that by the end of 2009, approximately one million households and businesses across the country will not be able to influence Australia's emissions profile, despite paying up to 30% more on their electricity bills for the misleading perception that they are.

For new GreenPower customers to achieve emissions reductions under the CPRS, current GreenPower purchase levels must remain stable for their purchase to be additional. Therefore current customers who discover their GreenPower purchase no-longer represents actual emissions reductions will either stop purchasing GreenPower, reducing purchase levels below the 2009 baseline making it much harder for new purchases to get above and beyond that baseline to achieve emissions reductions; or they will be guilted into remaining GreenPower customers, knowing their purchase makes no difference other than to possibly enable a future customer to achieve emissions reduction.

Secondly, the five year delay prior to abatement recognition of GreenPower purchases above the 2009 baseline calls into serious question the degree of immediacy of the benefit from a consumer perspective. What other goods and services in our economy offer a five year delay prior to product receipt? This approach completely undermines motivation for voluntary action by businesses, local governments and households, as well as making accounting potentially very difficult, if not impossible. Organisations and individuals need to be able to link their actions to abatement on a year by year basis.

Recommendation:

2. Ensure all GreenPower purchases (including current and past GreenPower purchases) further tighten CPRS caps / Kyoto units within 12 months of purchase.

4. The CPRS and Voluntary Action

There are many ways in which individuals and communities can and are taking voluntary action to reduce their emissions and have an impact on climate change. While many of these measures make common sense and represent financial savings or least-cost abatement such as changing light globes, other actions are taken with considerable effort or financial outlay from the community. Despite the effort or cost involved, these individuals and communities have decided that the outlay is warranted in order to reduce emissions and be a part of the solution to climate change.

4.1 Cutting the Community out of Climate Action

However, under the CPRS, this voluntary action across the community will not actually result in any further emissions reductions. Instead, additional emissions reductions will free up extra pollution permits for industry, effectively making polluting cheaper.

This perverse outcome from voluntary community action on climate change will act as a considerable disincentive for individuals and communities to take action. Further, by disabling their ability to reduce emissions, the community is effectively barred from participating in Australia's response to the climate challenge.

4.2 Local and State Government out of the Picture

It is not just the voluntary efforts and financial commitments from individuals that will no longer be able to achieve emissions reductions under the CPRS. Community groups and businesses will also be excluded, as will local and state governments who have until recently been at the front of Australia's action on climate change. None of these parties will be able to achieve actual emissions reductions.

State government energy efficiency programs, retrofitting of building stock or investment in sustainable infrastructure will not reduce Australia's overall emissions under the CPRS. Likewise, local government commitments to zero net emissions will be rendered ineffective, as will the potential for state based targets should any state wish to drive emissions reductions further than the national target, as all that would result from their investment is the freeing up of pollution permits for use in other jurisdictions.

4.3 Voluntary Action is Accountable

While GreenPower is the only form of voluntary action that is currently recognised under the CPRS, it is not the only form of voluntary action that can be accounted for and verified. Indeed, various other market mechanisms and programs are currently in place in Australia that enable accredited, recognised and verifiable voluntary action to reduce emissions.

The *Victorian Energy Efficiency Target* (VEET) is a case in point. The VEET, introduced in 2009, aims to encourage the uptake of energy efficiency technology in the residential sector, and is part of delivering the Victorian Government's commitment to reduce energy use from households by 10 percent by 2010. The scheme imposes a legal responsibility on energy retailers to contribute to energy efficiency by acquiring and surrendering Victorian Energy Efficiency Certificates (VEECs), in a similar way to which RECs are required under the RET.

For example, by decommissioning an inefficient hot water system and replacing it with an efficient system, the proportionate number of VEECs are generated and can then be sold on to the energy retailer, who surrenders the VEEC towards the target (one VEEC represents one tonne of CO₂-e abated). This financial gain to the purchaser of the efficient hot water system from the sale of the VEECs also acts as an incentive for the installation. The VEET scheme covers installation of efficient hot water systems, space heating products, installation of insulation and efficient windows, low energy lighting, low flow showerheads and efficient refrigerators and freezers.

The installation of roof-top solar panels is another form of voluntary action easily accountable through measurement of the energy generated. Further, local governments who have committed to achieving zero net carbon emissions by 2020 for example, are working to develop and refine emissions measures and reductions which could also be accredited through a market.

Allowing for the inclusion of accountable, accredited voluntary emissions reduction under the CPRS will also create the potential for new markets to emerge in this sector to take advantage of the widespread community desire to act on climate change, in much the same way the successful GreenPower market emerged some years ago.

Recommendation:

3. Establish a separate *Voluntary Market*, within which accredited voluntary actions such as installing roof-top solar panels, retrofitting buildings and purchasing carbon off-sets can be accounted for and further tighten CPRS caps.