25-7-08

Committee Secretary Senate Standing Committee on Environment, Communications and the Arts Department of the Senate PO Box 6100 Parliament House Canberra ACT 2600 Australia

eca.sen@aph.gov.au

## RE: Inquiry into Save Our Solar (Solar Rebate Protection) Bill 2008 [No. 2].

Thankyou for this opportunity to contribute to this inquiry.

Empowering individuals and families to contribute to tackling climate change through their own voluntary actions to establish solar systems is an important step in building an Australia wide culture of action, hope and collaboration.

I wish to comment on the importance of fixing the greenhouse accounting systems, Government policies and scheme design rules so that such actions are not a futile waste of effort by pleading for reform that will create a system that will actually deliver reduced emissions, as people expect.

I will focus on matter e) – "the impact on emissions reductions as a consequence of this decision, comparing state-by-state results";

It is fair to say that for most people, reducing emissions is the main reason why they would contemplate installing a household solar power system as well as potential operational energy cost savings. There are however, fatal policy flaws which have led to the vast majority of voluntary household systems (most likely more than 99%) ACHIEVING ZERO NET EMISSIONS REDUCTION beyond the requirements already required by law.

## Why is this so?

- When householders sign across their Renewable Energy Certificates (RECs) without full knowledge of what this means, they are generally unaware that the RECs are then used by MRET liable wholesalers and retailers to meet their mandatory requirements to achieve a minimum Renewable Power Percentage (RPP) required in that year. In signing across their RECs, these voluntary renewables therefore displace other renewable energy sources already required by law. Household solar systems now make up more than 20% of Australia's current MRET requirements but they are not additional because the policies and schemes are underdefined and flawed.
- 2. An alternative pathway is for the RECs to be used by bulk purchasing companies to create an accredited GreenPower provider, whereby GreenPower is created and sold to other customers

as accredited renewable energy. This approach is happening with Solar Cities programs as an example. Both the household that owns the solar system and the customer that buys GreenPower believe that they are using the same renewable energy and reducing or avoiding their emissions. **This double counting/belief is horrible and has gone on for long enough**. It means that one claim is totally false and in this case under the National Greenhouse and Energy Reporting Act, its Regulations and Determination (2008), a physical accounting approach is now law so it is the GreenPower product that is totally false in regard to zero emissions printed on the customer electricity bill, and the notion that the customer is using renewable energy.

I am aware of less than a handful of solar household systems where the owner has not signed across their RECs.

So whilst the *Save Our Solar (Solar Rebate Protection) Bill 2008* may rescue the household solar industry, the Senate Committee should understand that in terms of greenhouse reductions the total net benefit for the environment is virtually zero, and will continue to be zero until the Department of Climate Change and the Office of the Renewable Energy Regulator publicly acknowledge the greenhouse accounting problems and commence reforms.

For more information I enclose my submission on the Discussion Paper for an Expanded Mandatory Renewable Energy Target which explores the assignment of emissions benefits in more detail. I also suggest that a Senate Inquiry be undertaken to deal with the specific issue of dealing with Scope 2 emissions and how the NGERS Legislation, Regulations and Determination might be reformed to give both household solar systems and GreenPower a future in Australia without the need for double counting.

Kind regards

) ~ Kelly

Tim Kelly

### Attachment 1, Submission on an Expanded Mandatory Renewable Energy Target

Tim Kelly

16-7-08

The Renewable Energy Sub Group Secretariat Renewables, Offsets and COAG Branch Department of Climate Change GPO Box 854 CANBERRA ACT 2601 Email: ret@climatechange.gov.au

# **RE: DESIGN OPTIONS FOR THE EXPANDED NATIONAL RENEWABLE ENERGY TARGET.**

Renewable Energy Sub Group,

Thankyou for this opportunity to comment on this very important policy.

Australia's Mandatory Renewable Energy Target is part of a broader number of climate change related policy initiatives that now need to be integrated to form the market framework that will support a low carbon economy.

To date, the Department of Climate Change has tended to isolate policy initiatives dealing with renewable energy from emissions trading and emissions accounting. It is most interesting and disappointing that the National Greenhouse and Energy Reporting System (NGERS) Regulations and Determination (2008) do not include the phrase 'renewable energy', and provide no mechanism for customers to reduce their electricity related emissions when buying renewable energy.

It is hardly surprising therefore, that this paper fails to mention that all scope 2 greenhouse benefits associated renewable energy under this policy are assigned to the grid and are not traded with certificates to the customer. Despite the mechanism of MRET and its currency the Renewable Energy Certificate (REC) being used for GreenPower and in voluntary RECs trading (supported by the Office of the Renewable Energy Regulator (ORER)), there is no mention of how MRET interacts with the voluntary extensions of the policy.

This silo approach to climate change policy has led to extensive confusion and double counting of greenhouse benefits by many parties. Whilst RECs may only counted once, the use of renewable energy and greenhouse reductions are claimed more than once as a consequence of GreenPower and MRET frameworks. It is now time to reform greenhouse accounting of Scope 2 emissions.

#### Key recommendations of this submission are:

• Define an Aggregated Australian Renewable Energy Target (AARET) in a clear and transparent manner that identifies the pre 1997 baseline (REB), the mandatory (MRET) and voluntary (Voluntary RET) contributions of Australians separately.

- Fully define Renewable Energy Certificates to include the comparative greenhouse benefits, use of renewable energy, renewable-ness, and green-ness for the customer and make necessary adjustments to state emission factors for GreenPower to have legitimacy under law regarding its claims to reduce customer greenhouse gas emissions.
- Better integrate renewable energy policy with voluntary schemes that use MRET RECs with the National Greenhouse and Energy Reporting System, and with emissions trading.
- Fix GreenPower! Don't let GreenPower to continue to be the biggest class case of false and misleading conduct ever committed in Australia against three quarters of a million people and their families, all led to believe that they are reducing *their* emissions when the scope 2 greenhouse benefits are legally assigned to the grid under NGERS, and with only a double counted scope 2 benefit printed on their electricity bills.
- Stop the many situations where double accounting of renewable energy and greenhouse benefits is taking place directly or indirectly associated with MRET policy.
- Make sure that the cost of carbon permits is not passed through to GreenPower Customers when emissions trading starts.
- Only sectors that agree to full greenhouse accounting should be eligible to become sources of renewable energy. Emissions from native forest logging are not included in Australia's Kyoto greenhouse accounting and therefore generators using harvest residue from this sector should not be eligible to become MRET generators.
- Banking of RECs should be constrained to a five year rolling period.
- An accredited generator should be able to continue to produce eligible renewable energy indefinitely, above any pre 1997 baseline.
- There is no need to phase out the scheme; it would just become a permanent component of Australia's energy mix.
- In a free market environment where renewables are expected to compete, the proposal to phase out MRET by "*restricting the accreditation of new renewable energy power stations*" is offensive.
- The design approach under the Mandatory component (MRET) should exclude voluntary household PV and solar hot water systems and other small scale user-generator systems. These should be supported under a voluntary component (Voluntary RET) which does not predate upon the renewable energy certificates from such systems.
- The Department of Climate Change and the Renewable Energy Sub Group should establish a forum to consult with GreenPower customers, large and small.

## Comments on specific sections of the Renewable Energy Discussion Paper

## Introduction

In reference to the first Paragraph and dot point, the phrase "at least" misleads the public.

"The Australian Government has committed to implementing an expanded national RET scheme that will:

• ensure the equivalent of **at least** 20 per cent of Australia's electricity supply—approximately 60,000 gigawatt-hours (GWh)—is generated from renewable sources by 2020"

Under current MRET mechanisms, virtually all of Australia's voluntary renewables are predated upon by the mandatory mechanism and used to count towards the mandatory target. The language is therefore misleading as the policy establishes a virtual maximum target rather than an 'at least' minimum target.

"...increase the MRET to 45 000 GWh to ensure that together with the approximately 15 000 GWh of existing renewable capacity, Australia reaches the 20 per cent target by 2020".

The 15,000 GWh of existing renewable energy capacity is 1000 GWh less than the baseline value referred to in the 2003 MRET Review<sup>1</sup>. The Dock should use the 1997 baseline value exactly (appropriately referenced), so that there is no risk of an unexplained 1000 GWh discrepancy in relation to pre 1997 renewable energy capacity.

The proposed expanded MRET (*Target*) as with the existing MRET (*Target*), fails to provide the necessary clarity for Australian's to understand the full detail of the renewable energy policy. The only way for clarity to be achieved is for the Renewable Energy Sub Group to define each component of the total renewable energy target as follows:

	Component	Outcome (GWh/year)	Outcome %
	Pre 1997 Renewable Energy Baseline (REB)	16,000	20% (minimum)
+	Mandatory Renewable Energy Target (MRET)	45,000	
+	Voluntary Renewable Energy Aspiration (Voluntary RET)	6,000	2% +
=	Australia's Aggregated Renewable Energy Target (AARET)	67,000	22% +

Note that in defining Australia's voluntary aspiration separately to MRET, that the current Mandatory policy is untangled from the voluntary actions of households and businesses as it should be. Under an Australia Aggregated Renewable Energy Target, there is no ceiling to success.

## 1.2 Mandatory renewable energy target (MRET)

"The MRET scheme is designed to increase the deployment of renewable energy in Australia's electricity supply. It guarantees a market for additional renewables-based generation (backed by a legislative obligation), using a mechanism of tradable renewable energy certificates (RECs). One REC is equivalent to one megawatt-hour (MWh) of renewable energy".

This opening paragraph describes only the mandatory role of MRET and fails to describe that the mechanism and currency of MRET being the Renewable Energy Certificate (REC), is extensively used in the GreenPower accredited renewable energy scheme and the voluntary RECs market. This omission is a bit like failing to acknowledge that there is an elephant standing in the room.

<sup>&</sup>lt;sup>1</sup> MRET Review Panel, 2003, Renewable Opportunities, A Review of the Operation of the Renewable Energy (Electricity) Act 2000, <u>http://www.mretreview.gov.au/report/pubs/mret-chapter2.pdf</u>, p.11, accessed online July 11, 2008.

Despite the Federal Government's Physical approach<sup>2</sup> to legally assigning the greenhouse benefits of all renewable energy to the grid that by definition precludes the concept of RECs helping to reduce customer emissions, the Renewable energy Regulator and Department of Climate Change continue to turn a blind eye to the use of RECs as an emissions reduction. GreenPower in its current form is the single greatest case of false and misleading conduct in Australia's history, committed against three quarters of a million households and businesses. GreenPower uses the MRET REC as the basis for its product telling customers to "Switch to GreenPower and reduce your greenhouse gas emissions today". This statement is false and misleading, as the Federal Government has assigned the greenhouse benefits to the grid.

The customer pays extra, gives a free ride to all grid customers including the biggest electricity users, and when emissions trading starts, will find that emissions permit costs are passed through to them. The printing of zero emissions on GreenPower customer bills is simply double dipping because it assigns the same scope 2 emissions benefits twice.

When the issues summary of all stakeholder submission is written up, please do not misrepresent this issue as suggesting that there is double counting of RECs, as this is not the case. It is the double counting of the *emissions benefit* that is unacceptable. A further analysis of the Department of Climate Change 'Physical Approach' is provided in Appendix 1.

#### **BOX 1 - Double Accounting Case Study**

#### **Voluntary Actions Making Zero Difference.**

Australian citizens should feel proud of their voluntary take up of renewable energy systems (mostly hot water systems) which are equivalent to around 20% of Australia's mandatory renewable energy requirements. Sadly however, the predatory nature of the Government MRET system has been to use these voluntary actions to meet the mandatory target and in doing so has displaced other renewable energy already required by law. This means that virtually all voluntary systems to date have led to zero net greenhouse gas reductions in Australia and most system owners are unaware of the detail. MRET has become a ceiling for renewable energy in Australia not a minimum platform.

Australian Government incentives lead to virtually nothing more than achieving the renewable power percentage.

<sup>&</sup>lt;sup>2</sup> Department of Climate Change 2008, *Technical Guidelines for the Estimation of Greenhouse Emissions and Energy at Facility Level Energy, Industrial Process and Waste Sectors in Australia.*, p 128, accessed online July 5, 2008 http://www.greenhouse.gov.au/reporting/publications/pubs/nger-techguidelines.pdf

#### **BOX 2 Double Accounting Case Study**

#### South Australia's Renewable Energy Targets Making Zero Difference.

The South Australian Government loudly promotes its 20% renewable energy generation and consumption targets.

These targets are however parasitic by nature being based on attracting MRET generation to occur preferentially in the South Australia. Whilst establishing conditions to be more favourable in South Australia is fair competition, the policy is not designed to achieve any additional generation capacity or to reduce emissions above what MRET already requires. Interestingly both targets are generation based targets:

- The 20% Generation target is based on renewable energy generated in South Australia as a proportion of total electricity generated in the state.
- The 20% consumption target is based on renewable energy generated in South Australia as a proportion of total energy both generated and imported via inter-connectors into the state.

The claim of use is based on the physical accounting approach and ignores the fact that the vast majority of such renewable energy is paid for by other states where liable wholesalers are retailers are required to acquire more renewable energy certificates. So South Australia's electricity emissions factor has reduced by around 30% in recent years, largely as a result of renewable energy required by liable wholesalers and retailers in other states.

COAG should consider the fairness of electricity customers in the eastern states largely paying for South Australia's renewable energy without receiving reduced emissions and therefore also facing the cost of carbon permits being passed through to their electricity bills unfairly.

SA is likely to claim use of 20% renewable energy within a year or two whilst the state will only pay for around 3% by 2010. There will be zero net emissions benefit above what MRET already requires by law.

South Australia's renewable energy targets are a form of double counting in that they are promoted as being something additional to reduce emissions when they don't.

#### A full definition of the Renewable Energy Certificate

If the community is going to trust the Government in its Emissions Trading Scheme and Renewable Energy Policy it is essential that double accounting is stopped by establishing a no double counting principle as one of the key design objectives. To achieve this, the first necessary step is to clarify the definition of the REC. As Australia's mandatory and voluntary schemes are absolutely riddled with double counting like a cancer, there is going to be some pain to sort out the mess.

In the following Table, RECS are fully defined under the current NGER System using the Physical approach that gives renewable emissions assigns to the grid, or the alternative hybrid approach that would assign the greenhouse benefit with the REC for the benefit of those that actually pay for the renewable energy. No matter what approach is chosen, it is essential to clarify in MRET and NGERS whether the REC includes the aspects of green-ness, renewable-ness and use of renewable energy for a customer or not.

	National Greenhouse and Energy Reporting System Current Physical approach	Reformed system Adjusted Physical-Contract hybrid approach
Definition	<ul> <li>One REC is equivalent to one megawatt-hour (MWh) of renewable energy.</li> <li>The greenhouse benefit is assigned to the grid, benefiting all grid customers in proportion of their use</li> <li>All grid customers use the renewable energy</li> </ul>	<ul> <li>One REC is equivalent to one megawatt-hour (MWh) of renewable energy.</li> <li>The Greenhouse benefit is assigned with the REC to the paying customer</li> <li>Those that buy the REC or GreenPower receive the greenhouse reduction</li> <li>The paying customer receives the green-ness, the renewable-ness and use of renewable energy</li> </ul>
Impact on GreenPower customers	Needs to change to: 'Switch to GreenPower today and reduce the emissions intensity of the grid'	"Switch to GreenPower today and reduce your greenhouse gas emissions"

	<ul> <li>GreenPower customers pay extra and:</li> <li>Receive virtually no reduced emissions</li> <li>Give the biggest free ride to the biggest electricity consumers</li> <li>Will be liable to pay for emissions permit costs for emissions they have paid to avoid</li> </ul>	<ul> <li>GreenPower customers pay extra and:</li> <li>Receive reduced emissions for themselves</li> <li>Don't unwittingly give free rides to others</li> <li>Will not be liable to pay for emissions permits under emissions trading</li> </ul>	
Impact on GreenPower	Will collapse as the scheme does not benefit the customer	Will flourish as the comparative difference between standard electricity (with carbon costs) and renewables (with no carbon costs) results in a level playing field.	
Impact on States	States that export RECs get a free ride to reduce the state based electricity factor paid for by other states (e.g. SA)	The states that buy RECs receive the benefits of lowering their emissions factor in a fair market framework	
Impact on household and small scale renewable systems	Greenhouse benefits go to the grid when RECs are created and sold. System owner belief of using renewables is compromised.	Greenhouse benefits stay with the system owner if RECs are not created or if they are voluntarily surrendered to ORER. Or, Greenhouse benefits are assigned with the REC	
		to the customer if sold	

#### BOX 3 Greenhouse Truth Overboard A pattern of Government Agencies reassuring their myths in blatant disregard for their own legal framework.

### FACT

The Australian Government through its single National Greenhouse and Energy Reporting System has established the 'Physical Approach' to assigning the greenhouse benefits of all renewable energy and low emissions energy sources to the grid as Scope 2 benefits (See Appendix 1).

By definition, this therefore means that the concept of individual customers reducing emissions through contracts to buy renewable or low emission energy is extinguished until or unless the Federal Government alters its position on its 'Physical Approach'.

Under the 'Physical Approach' RECs do not mean use of renewable energy or reduced emissions for customers.

State and Federal Government Agencies then ignore legal systems and make false and misleading statements to the public on their websites:

ACCC –	- "Switching to electricity officially accredited as coming from these sources-known as		
	GreenPower <sup>TM</sup> —is a recommended way of reducing your carbon footprint"		
GREENPOWER -	"Switch to GreenPower today and reduce your greenhouse gas emissions"		
ORER -	- "All registered owners of RECs can choose to voluntarily surrender RECs for any reason, for example:		
	• to encourage additional generation of electricity from renewable sources;		
	<ul> <li>to reduce greenhouse gas emissions; or</li> <li>to demonstrate their use of additional renewable electricity from a particular renewable energy fuel source accredited under the mandatory renewable energy target".</li> </ul>		
support GreenPower clain enewable energy certific	ing clear, organisations have been misled by ORER, GreenPower and now the ACCC, to blindly ms that it reduces greenhouse gas emissions for customers, based on the under-defined MRET ate assurances. This leads to further promotion of false and misleading claims on scope 2 nost in a cyclical nature just like the 'children overboard affair'.		
CHOICE MAGAZINE	-" Switching to accredited GreenPower would significantly reduce the Greenhouse Gas emissions you're responsible for".		
GREENPOWER	- "GreenPower has welcomed the Australian Competition and Consumer Commission's release of information on carbon offsets claims as another recommendation of the importance of strict accreditation programs for business and consumer peace of mind. <u>Read more.</u> ".		
	"Not-for-profit consumer association, Choice, has released their second annual report on GreenPower-accredited renewable energy profiling the costs of all 100 per cent GreenPower products. Read more"		

## 2. Design issues

## **2.1 Liability and annual targets**

The Authors of this document are quite careless in confusing MRET wit RET. In the Introduction the paper suggests that the intention is to increase the MRET to 45 000 GWh, yet in this section the paper suggests increasing the RET to 45,000 GWh per year. This indicates the underlying confusion that the Department of Climate Change has with its own policy, and highlights the need to be very clear on the

different components of this policy being the REB, MRET and Voluntaty RET components that when added together form Australia's Aggregate Renewable Energy Target (AARET).

Stakeholders' views are sought on possible approaches to setting annual targets and their implications for investment mix, generation profile and cost of the measure.

Setting annual minimum targets to achieve the desired outcome by 2020 is an excellent approach. The targets should increase on at least a linear pathway each year in order to achieve both the MRET 45,000 GWh/year target and a minimum 20% renewable energy for the nation when added to pre 1997 renewables (and allowing the Voluntary RET to take this further to 22% +).

## 2.2 Eligible sources

Different renewable energy sources should be able to produce RECs subject to complete accounting of greenhouse liabilities and benefits. As revealed in recent Senate Standing Committee, harvesting of wood from some native forests is not even counted in Australia's Greenhouse Gas Inventory Emissions from native forest logging in Tasmania or anywhere else in Australia is not within the greenhouse accounting framework that Australia uses. *"It is not a zero figure; it is just not within the accounting framework*<sup>3</sup>". Under such circumstances it would be most inappropriate to claim a greenhouse benefit when the greenhouse liability is not included. As a minimum, the total of forestry, revegetation, land use change and land clearance associated industries and activities must be in and agree to full greenhouse accounting to be eligible to become sources of renewable energy.

Each REC should include its scope 2 greenhouse emission and even the scope 3 emissions (separate) caused when constructing a power plant such as the wind farm. Wind power has zero scope 2 emissions whilst wood harvested from native forests adds to emissions.

## 2.3 Banking

Banking should be restricted to a period not more than 5 years. The current perverse spike in the price of RECS may have largely been caused by excessive banking of RECs in the lead up to a larger MRET and Emissions trading.

## 2.4 Project eligibility periods

The notion that RECs can be sold to "derive an additional project revenue stream, on top of the revenue from sale of the physical electricity that underpins the RECs" is going to be a huge problem when emissions trading starts for GreenPower customers. The voluntary RECs market creates disaster and should be stopped. Ideally, RECs should always be used with a GreenPower electricity product to enable a customer to receive the greenhouse benefit and avoid carbon permit costs. When RECs are traded in a voluntary market separate to electricity it becomes impossible to avoid the carbon cost being passed on to a customer.

Project eligibility periods should not be constrained. In a free market based on post 1997 renewable energy creation, an accredited generator should be able to continue top produce eligible renewable energy indefinitely.

<sup>&</sup>lt;sup>3</sup> Hansard, 2008, Senate Standing Committee On Finance And Public Administration Estimates (Budget Estimates), http://www.aph.gov.au/hansard/senate/commttee/s10848.pdf, Accessed online, 5 July, 2008

## 2.5 Existing generators

Since a predetermined annual baseline that reflects an historical average level of generation was already assigned to pre 1997 generators, there is no need to make any further distinctions for the expanded MRET.

The challenge is merely to build more renewable energy on top of the pre 1997 renewable energy baseline, raising the bar each year as has been the case for the past decade. If an existing generator meets MRET requirements above its 1997 baseline it should be in.

## 2.6 Duration and phase-out

Again, in this section the authors are confused between their own definitions of RET and MRET.

Paragraph three suggests "The scheme is to be phased out between 2020 and 2030 as electricity prices rise under an ETS to allow renewables-based electricity to compete without the price support provided by the RET".

The following list of proposed phase out mechanisms then proposes "restricting accreditation of new power stations after a particular year" This is an offensive concept. *How in any sense of a free market based system, does restricting the accreditation of new renewable energy power stations allow renewables to compete?* 

If Australia's Aggregated Renewable Energy Target is successful, then in all that the regulator would need to do is watch the mandatory renewables continue along side the growing proportion of voluntary renewables that many customers will be buying to reduce their emissions and avoid paying carbon costs. Phasing out the system merely creates an un-necessary risk that would harm businesses and may increase emissions.

If COAG and the The Renewable Energy Sub Group believe in true market based policies, they will recognize the need to maintain a fully defined REC system (including its relative greenhouse benefit) as the currency of a continued market.

Let the scheme be successful before planning its destruction.

## 2.7 Compliance mechanisms

The compliance mechanism requires reform to deal with the relative emissions benefits of renewable energy.

The Office of the Renewable Energy Regulator must have a legal framework to link the renewableness, greenness, use of renewable energy and zero or low emissions to a renewable energy certificate unless Governments and the Renewable Energy Sub Group wish to destroy the concept of GreenPower.

#### **BOX 4 Double Accounting Case Study**

#### **Adelaide Solar City**

The \$80M Adelaide Solar Cities initiative (including approximately \$15M of Federal Government funding) involves the establishment of high numbers of solar PV systems for households amongst other commendable initiatives. Participating households believe that they are using renewable energy by installing rooftop solar systems (and under NGERS accounting they are).

It is estimated that 99% of Solar Cities customers then sign across their MRET accredited renewable energy certificates to their consortium provider.

On the GreenPower accredited generators list it is also easy to see that an accredited SA Bulk PV GreenPower generator has been created for the exclusive purpose of *using the very same renewable energy certificates to create GreenPower* that is sold to other customers.

In this case Solar Cities, GreenPower and the MRET mechanisms mislead two customers into beliefs of renewable energy use and greenhouse avoidance for every renewable MWh produced.

Interstate trading of Renewable Energy Certificates must also be tracked to make necessary adjustments to state emissions factors in order for MRET and the Australian Emissions Trading systems to be fair in assigning costs to customers.

## 2.8 Trade-exposed electricity-intensive industries

Trade exposed electricity-intensive industries will receive assistance under Australia's Emissions Trading assistance programs. With this in mind, there is no need to provide an additional assistance mechanism under MRET.

Compared with the approximate cost of \$225/MWh householders pay for peak rate electricity as GreenPower customers, and the \$122/MWh they pay during off peak times, as well as quarterly access charges, some large electricity–intensive industries are paying much lower rates for their electricity closer to \$60/MWh or less.

## 3. Design approaches

It is disappointing that the Department of Climate Change and COAG have made such an issue of two similar design approaches whilst ignoring the bigger issue of reforming renewable energy accounting.

Neither approach has a focus on achieving the target at least cost when it can be demonstrated that tens of millions of dollars are used to subsidise household solar PV and hot water schemes, Solar Cities projects and other small scale generation schemes, only to acquire household renewable energy certificates in a predatory deceptive manner (because RECS are not fully defined). Counting voluntary efforts for MRET displaces other more cost effective renewables already required under law.

Neither approach is supported as they both seek to phase out MRET and potentially destroy achievements after 2020. There is no need for a phase out if emissions trading is successful as the demand for renewables would simply become embedded within the mix of low emissions electricity that will be required to do business.

Hot water heaters and household systems should be untangled from MRET now, so their voluntary nature is not destroyed by the current predatory MRET approach. Alternative incentives such as feed-in tariffs and the rebate programs can be beefed up using some of the emissions trading revenue if necessary, so that household voluntary initiatives are truly additional.

## 4. Modeling and analysis

The Department of Climate Change and the Renewable Energy Sub Group should establish GreenPower customer forum for consultation in an open and transparent manner, particularly when considering decisions that may undermine the concept of GreenPower.

## APPENDIX 1 Physical and contract approaches for allocating Scope 2 emissions to customers.

#### From

The National Greenhouse and Energy Reporting System Technical Guidelines for the Estimation of Greenhouse Emissions and Energy at Facility Level Energy, Industrial Process and Waste Sectors in Australia.

DISCUSSION PAPER December 2007 http://www.greenhouse.gov.au/reporting/publications/pubs/nger-techguidelines.pdf

Text extract is pasted from the document directly below, followed by a further discussion as to the meaning of the text.

### **Text Extract from Page 128**

#### BOX: Scope 2 Emission Factors - 'Physical' and 'Contract' Based Approaches

Consistent with International Energy Agency (IEA) practice, these Guidelines present state-based emission factors from on-grid electricity generation calculated systematically from the physical characteristics of the electricity grid. The state-based emission factor calculates an average emission factor for all electricity consumed from the grid in a given state or territory. All emissions attributable to a state or territory's electricity consumption are allocated amongst individual consumers in proportion to their relative level of consumption. In effect, the likelihood of a particular generator supplying a particular consumer is assumed to reflect each generator's relative level of supply to the grid. The reason for this approach is that within an electricity grid it is impossible to physically trace or control the actual physical source of electricity received by each customer.

The estimated scope 2 emission factors meet the requirements of transparency, completeness, comparability, time series consistency and accuracy. This approach minimises information requirements for the system and produces factors that are relatively easy to interpret and apply, and which are used to support a range of specific government programs and policies. Consistent adoption of these 'physical' state-based emission factors ensures the emissions generated in each state are fully accounted for by the end-users of the purchased electricity and double counting is avoided.

An alternative approach to estimating scope 2 factors would be to systematically base the estimates on contract information. Under this market-based system, consumers of electricity would be allocated the emissions generated by their contracted supplier. A 'contract-based' approach would involve the estimation of emission factors for each supplier of electricity and would, if implemented systematically, also meet the requirements of completeness, comparability etc. The information requirements for such a system would be significantly greater than for a system based on physical characteristics, however, and the level of transparency might be less if the estimates relied upon non-public information.

Hybrid approaches that combine elements of these two systems are necessarily *ad hoc* in character. Extending elements of marketbased approaches to the scope 2 emission factor calculations—for example, excluding general consumers from the benefits of the supply of certain renewables linked to renewable credit schemes—would likely enhance market signals to some participants. On the other hand, such approaches risk undermining the principles of completeness, comparability and transparency of the system as a whole.

The development of scope 2 emission factor definitions designed to create incentive structures to drive the choice of electricity supplier by consumers is a policy issue that goes beyond the scope of this paper. The merits of such incentive structures may be best considered in conjunction with a broader greenhouse emissions policy review. Submissions are invited on the relative merits of the two approaches on this topic.

The Department of Climate Change plans to ensure that the emission factor calculation method for scope 2 will be regularly reviewed to ensure that the factors estimated are of maximum effectiveness for Government programs, other policy analysis and to inform external stakeholders and the public of the greenhouse gas emission impacts of electricity consumption.

#### **Text Discussion**

BOX: Scope 2 Emission Factors – 'Physical' and 'Contract' Based Approaches Consistent with International Energy Agency (IEA) practice, these Guidelines present state-based emission factors from on-grid electricity generation calculated systematically from the physical characteristics of the electricity grid. *COMMENT - EIA practice does not necessarily provide a good foundation to supports market based systems for reducing greenhouse gas emissions* 

The state-based emission factor calculates an average emission factor for all electricity consumed from the grid in a given state or territory. All emissions attributable to a state or territory's electricity consumption are allocated amongst individual consumers in proportion to their relative level of consumption. In effect, the likelihood of a particular generator supplying a particular consumer is assumed to reflect each generator's relative level of supply to the grid. *COMMENT - In these two sentences, the Taskforce describes what they call the 'physical; approach' whereby emissions from all sources of electricity are assigned to the grid and grid customers. Renewables and low emissions electricity dilute the grid intensity. This kills off the notion of trading GreenPower or RECs for a customer to reduce their emissions.* 

The reason for this approach is that within an electricity grid it is impossible to physically trace or control the actual physical source of electricity received by each customer. *COMMENT Why is it that we can trace and control the many different electricity retailers that use the grid to retail electricity to customers in contracts but it is not possible to account for other attributes in contracts?* 

The estimated scope 2 emission factors meet the requirements of transparency, completeness, comparability, time series consistency and accuracy. *COMMENT There is nothing transparent about this approach, if it was, we would define that MRET RECs don't mean reduced emissions and GreenPower does not reduce a customers emissions for themselves, it just reduces the greenhouse intensity of the grid.* 

# The factors are only accurate if the system prevents double counting which because of GreenPower and voluntary MRET RECs trades, it does not.

This approach minimises information requirements for the system and produces factors that are relatively easy to interpret and apply, and which are used to support a range of specific government programs and policies. Consistent adoption of these 'physical' state-based emission factors ensures the emissions generated in each state are fully accounted for by the end-users of the purchased electricity and double counting is avoided. *COMMENT – This statement is untrue Double counting is not avoided it is everywhere. It is misleading to suggest that within a single count double counting is avoided double and triple counting are well known. GreenPower provides such an example whereby zero emissions are printed on customer bills despite the benefits already being legally allocated to the grid* 

An alternative approach to estimating scope 2 factors would be to systematically base the estimates on contract information. Under this market-based system, consumers of electricity would be allocated the emissions generated by their contracted supplier. A 'contract-based' approach would involve the estimation of emission factors for each supplier of electricity and would, if implemented systematically, also meet the requirements of completeness, comparability etc. The information requirements for such a system would be significantly greater than for a system based on physical characteristics, *COMMENT This statement is designed to cause un-necessary fear* however, and the level of transparency might be less if the estimates relied upon non-public information. *COMMENT Nothing could be less transparent than the current mess* 

## Hybrid approaches that combine elements of these two systems are necessarily ad hoc in character. COMMENT A hybrid systems that simply makes some adjustments to net out renewables sold voluntarily and sold interstate can be achieved with relative ease

Extending elements of market based approaches to the scope 2 emission factor calculations—for example, excluding general consumers from the benefits of the supply of certain renewables linked to renewable credit schemes—would likely enhance market signals to some participants. *COMMENT Some participants would include 748,000 GreenPower Customers THREE QUARTERS OF A MILLION PEOPLE*.

On the other hand, such approaches risk undermining the principles of completeness, comparability and transparency of the system as a whole. COMMENT - Such an approach will have no impact on the system as a whole being the total of Scope 1 emissions associated with electricity, but would greatly add to credibility of scope 2 emissions accounting and provide a legal foundation to GreenPower.

The development of scope 2 emission factor definitions designed to create incentive structures to drive the choice of electricity supplier by consumers is a policy issue that goes beyond the scope of this paper. The merits of such incentive structures may be best considered in conjunction with a broader greenhouse emissions policy review. Submissions are invited on the relative merits of the two approaches on this topic. *COMMENT The decision to continue with the Physical approach in the Technical Guidelines and Regulations is being made in this paper and will destroy any hope of credibility for GreenPower to mean reduced emissions for customers* 

The Department of Climate Change plans to ensure that the emission factor calculation method for scope 2 will be regularly reviewed to ensure that the factors estimated are of maximum effectiveness for Government programs, other policy analysis and to inform external stakeholders and the public of the greenhouse gas emission impacts of electricity consumption. *COMMENT This is a familiar statement of procrastination, like so many familiar statements over many years made to resist reform of scope 2 electricity emission accounting.* 

#### Final Comment

This Box should have been a chapter describing the implications of such a decision on the voluntary trading of GreenPower, RECs and low emissions electricity products. There should have been a section on how customers might buy renewable and low emissions energy as an alternative to paying for standard electricity that would include carbon permit costs. Instead GreenPower Customers will still be paying for emissions permits.

There might have been a section dealing with how carbon permit costs will be passed through to customers in a transparent manner.

There might have been a section that takes a serious look at the prevention of double accounting.

The National Greenhouse and Energy Reporting Taskforce have treated 748,000 GreenPower customers with disrespect, and are creating a system that will ensure that a market based mechanism to reduce electricity emissions is not available to household and business electricity customers.

Kind regards Tim Kelly

Private Citizen