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Submissions
Climate Change Authority
GPO Box 1944
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Keppel Prince Engineering submission to the
Review of the Renewable Energy Target Scheme Issues Paper

Keppel Prince Engineering (KPE) operates one of the largest of Australia's manufacturing groups targeted at providing renewable energy solutions to both the wind and solar sectors of the market. KPE welcomes the opportunity to offer our perspective to the issues raised by the Renewable Energy Target review team.

The first comment we would make is that the review should not be questioning the need to reconfigure Australia's energy sector towards greater dependence on renewable energy. The review should accept that the science on climate change is irrefutable. The question must remain "How do we ensure that eventually Australia's energy needs are met from renewable sources?" The question should never be allowed to default back to one of whether renewable sources should be part Australia's future energy infrastrcture.

Accordingly KPE contends that there should be no change to the 45,000GWHr RET. Further, the review should enshrine the concept that both 20% by 2020 and 45,000GWHr by 2020 are the minimum outcomes written into the legislation by confirming both the 41,000GWHr LRET and an uncapped SRET.

The second comment we would make is that the Renewable Energy Target (RET) is the ONLY policy driving investment in the development and deployment of renewable energy in Australia:

- Whenever it has delivered certainty to the marketplace, the RET has been highly effective in delivering additional large and small scale renewables into the Australian energy sector. And with volume the cost of renewable energy is slowly but surely bridging the gap to fossil fuel energy sources;

- The cost of the RET is small and getting smaller, particularly when weighed up against the benefits renewable energy delivers in terms of energy security and diversity, and carbon abatement;

- The RET is an investment-grade policy that, if it is left unchanged, will deliver at least 20 per cent of Australia's energy from renewable energy sources by 2020, therefore providing the sector with certainty;

- As others have already pointed out, massive amounts of investment have already been made on the basis of the current policy settings. These investments, and Australia's credibility in attracting global capital for energy infrastructure, will be damaged if the RET is changed.

The third comment that we would make is that biennial reviews of the RET represent the only risk to the achievement of the 20 per cent target by 2020. The RET has undergone regular reviews since its inception, each time resulting in the slowing or deferment of investment. With bilateral support for the target of at least 20% by 2020, RET reviews every two years are unnecessary. Intervention should be limited to changes in the program to correct unforeseen divergence from the agreed pathway.

Having said that, our final comment is that whilst KPE agrees that the SRET should continue as an uncapped scheme, the review must determine a way forward to provide some certainty on both how much assistance is provided and when and how it is best paid for new installations of small scale renewables. At the moment the solar industry sector is effectively cash flowing the expansion of Australia's solar generation capacity. Put simply, this is unacceptable.

Please contact our General Manager, Mr Steve Garner, if you wish to discuss any of these matters further.

Regards,

Mike Noske

Projects Manager

Section 1: Overview

It is an irrefutable fact that despite having some of the best renewable energy resources of any country in the world, Australia has one of the most carbon intensive energy sectors in the world.

Traditionally it has been accepted that access to huge reserves of cheap coal, which has in turn underwritten the delivery of extremely cheap power, is the main driver creating our carbon intensive energy sector.

That should not be taken for granted by the review. Australia exists in a global economy where demand for our fossil fuels is increasingly driving up the cost of fossil fuels and accordingly fossil based power generation.

Further, developments over the past 10-15 years suggest that Australia's so called low cost fossil fuelled power may in fact be illusionary. In fact, generation cost is no longer the main driver of power pricing. By far the largest cost drivers in the power price equation are the transmission and distribution network.

The review should recognise the role that renewable energy sources (particularly dispersed domestic and commercial solar) can play in mitigating the need for ongoing investment in an upgraded distribution network

RET's Achievements

The RET has been the only driver underpinning the deployment in Australia of lowest cost renewable energy technologies. Since its introduction in 2001 KPE is informed that it has achieved:

- 13,700GWh of large scale renewable energy generation;
- $22.2 billion of renewable projects either completed or in construction;
- At least another $12-15 billion in renewable project investments approved or planned; and
- More than 1.7 million small-scale installations of solar PV and hot water.

RET's Failings

The achievements listed above would have been far greater if the scheme had been administered over the period with a view to certainty rather than political or economic expediency.

The decision by the Government in 2009 to replace a grant based installation incentive for small scale solar PV and hot water with an artificially enlarged Renewable Energy Certificate (REC) based scheme caused a REC market failure which effectively turned off the pipeline of large scale renewable energy projects.

KPE's personal experience was that after having a 12 month order book in hand late in 2007, by mid 2009 the company was living hand to mouth as project after project was delayed, rescheduled or cancelled. That single market intervention by the government effectively halved the price of REC's and drove returns from large scale renewable projects below their cost to build and operate.

KPE is only just starting to see an enquiry level matching our earlier experiences. Because of the long lead time for projects it will be at least another twelve months before we expect to be employing similar workforce numbers to our 2007/08 levels.

The review should learn from the fact that as much as 1,200 MW of renewable energy capacity slated in 2008 for installation during the period 2009-2012 did not go ahead because the industry lost the certainty it needs to justify the long term investments required in large scale renewable projects.
A failure by this review to lock in certainty for the 41,000GWh LRET by 2020 will duplicate the experience of the past 4 years and bring about the ultimate failure to meet the RET by Australia.

Renewable energy is NOT a major cost component of electricity bills

Analysis prepared for the Clean Energy Council (CEC) suggests that the cost of the RET to electricity consumers is around 7% of their bill in 2012 and will reduce to just 4% of the bill by 2020. This reduction will be a factor of the ongoing reduction in the unit cost of renewable energy generation combined with the ongoing explosion in distribution network and transmission (Grid) costs.

State Governments across Australia have dramatically reduced Feed-in-Tariff schemes which, whilst promoting the uptake of solar PV, have added $15-20/year to the average household electricity bill. KPE finds it remarkable that they have done this while at the same time overseeing upgrades to the Grid that have added more $3-400/year to the average household bill over the past 5 years without asking if there is a better way.

It could be argued that an expansion of distributed solar PV embedded into the Grid may well result in reductions to consumers' future electricity bills below the levels they would be at if more solar PV is not installed

The review should recommend that Government institutes a study to definitively identify the cost drivers in electricity power pricing as well as the interactions between elements in the equation so that decisions on support schemes for renewable energy generation take account of all the factors and effects of distributed renewable energy.

The SRET Clearing House IS NOT functioning in the manner it was supposed to when the RET was split into a LRET and a SRET

At the risk of retelling known history, the RET was separated into a LRET and SRET in 2010 because of a total failure in the existing Australian REC market. As we have note above, this failure was a direct result of a decision/intervention in 2009 by the federal government.

The intention and initial design of the SRET was deceptively simple:

- Government confirmed its intention to support the installation of solar PV and hot water;
- Government confirmed that this support would be paid for by all electricity consumers via a charge on electricity retailers through the forced purchase of SGU STCs;
- Each year, Retailers were supposed to buy all of the SGU STCs created during that year as a result of the operation of the scheme; and
- The SGU STCs were supposed to have a stable value of $40 each. This value was to be maintained by selling all STCs through the Clearing House at that price on a first in/ first out basis.

The reality is that the managers of the scheme have never got the arithmetic correct with the result that certificates generated in February 2011 are still in the Clearing House waiting for buyers and, as at September 14th, 2012, the industry has some $242 million locked inside the Clearing House with no real prospect of any sales before June 2013.

The review should consider other alternatives to support the ongoing installation of solar PV and hot water. That said, any change to the existing system must be phased in with a transition that allows owners of STCs inside the Clearing House to recover the full $40 value of their RECs before June 30, 2013.

Section 2: Response to Issues Paper questions

KPE has provided answers to those questions where we believe experience and/or knowledge within the company provide justification for the answers offered.

Are the existing 41,000 GWh LRET 2020 target and the interim annual targets appropriate? What are the implications of changing the target in terms of economic efficiency, environmental effectiveness and equity?

Assuming that the review's intention is to ensure that Australia produces at least 20% of its power with renewable technologies then the existing target is appropriate. The main driver for this statement is recognized in the Issue Paper's discussion on the Large Scale Target where it is noted that "

"*Risk is a key factor in investment decision making, so that any changes to MRET that would reduce market certainty would also reduce the prospect of attracting the required financial backing for projects."*

KPE contends that making any change that reduces the 41,000GWh LRET target would serve to introduce uncertainty into the market. Historically, as soon as uncertainty is perceived by the sector it has dissuaded investment in Large Scale technologies. Accordingly it is KPE's view that reducing the hard 41,000GWh LRET target carries a significant risk that the (revised) target will not be met.

KPE contends that there is no reason to change the target:

- It is accountable. A fixed 41,000GWh target is the only policy lever available to government that is certain and controllable.
- It is an efficient. According to research done for the CEC, the cost of the LRET as a percentage of average consumer electricity bills is unlikely to move outside the range 1-3% moving forward;
- The target has been, is and will continue to be effective in introducing lowest cost renewable generation technologies into the Australian marketplace; and
- It is equitable. The support for investment is broadly based on the volumes of renewable energy created in any one year meaning that the cost to consumers reasonably reflects the current cost of that support.

As we have mentioned, our view is that changing the target will introduce uncertainty into the market that will affect investment levels in the renewable sector. In that event, the interim targets for renewable generation will not be met; the numbers of LRECs produced will fall short of the target; and retailers will be hit with more expensive shortfall charges to meet surrender volumes – which will be passed through to consumers.

Is the target trajectory driving sufficient investment in renewable energy capacity to meet the 2020 target?

KPE asserts that the LRET trajectory is currently driving sufficient investment in the sector to meet the 2020 target. Provided investors continue to see certainty for a level of return from large scale renewable generating assets, KPE believes that will continue.

SRET capacity is in turn being driven by the combination of sharp increases in consumer electricity prices (largely caused by expenditure required for the upgrade and rehabilitation of the Grid), the ongoing drop in component costs for solar PV systems, and the continued support for the sector through the SRET.

How much capacity is needed to meet the target? How much is currently committed?

KPE estimates that around 7,000MW of capacity is required to meet the LRET. With over 15,000MW of large scale projects approved or proposed, there appears to be enough in the investment pipeline to meet the 2020 target. Modelling indicates that LRET volumes in the marketplace will drive the Power Purchase Agreements (PPA) required to trigger start-up of those projects.

KPE again cautions the review that the long lead times involved in these projects means that any disincentive created by uncertainty will risk achievement of the target.

The existing installed capacity of solar PV (approx 1.5GW) should generate approximately 2100GWh each year. KPE asserts that current indications are that uptake of solar PV by consumers will ensure that the SRET of 4,000GWh will be achieved.

Has the LRET driven investment in skills that will assist Australia in the future?

KPE is visible proof that LRET has driven investment in skills and equipment that will continue to serve Australia in the future.

However Australia does not exist in a vacuum; the reductions in (USA & European wind) investment resulting from the GFC mean that manufacturing capacity in SE Asia and China developed to meet demand in those markets is now being aggressively targeted at the Australian market.

At the very least the review should be making recommendations for an import duty on wind turbine towers of at least the 12.5% export subsidy provided to Chinese manufacturers by their government.

In the context of other climate and renewable policies, is there a case for the target to continue to rise after 2020?

Every indication suggests that the existing targets will be enough to achieve the legislated requirement for at least 20% of Australia's power requirements to be generated from renewable sources by 2020. The only obvious cause for the targets to be increased after 2020 would be the government adopting a higher percentage for renewable energy as a target for 2030 and onwards.

Should the target be a fixed gigawatt hour target, for the reasons outlined by the Tambling Review, with the percentage being an outcome?

Put simply, YES. The past 4 years are an ample illustration that maintaining an adequate rate of investment in large renewable generation requires certainty and constancy in the sector.

KPE asserts that this can only be achieved with programs built around achievement of fixed gigawatt hour targets. The fact is that the legislation nominates the achievement of **at least 20%** of power being generated from renewable sources. Indications are that achievement of the 41,000GWh LRET combined with the probable overshoot in the SRES will indeed achieve that.

Should the target be revised to reflect changes in energy forecasts? If so, how can this best be achieved – as a change in the fixed gigawatt hour target, or the creation of a moving target that automatically adjusts to annual energy forecasts?

Put simply, NO. As has been stated, investment of the scale required to achieve the LRET requires certainty for investors. There are a number of reasons why revising the targets to reflect changes in energy forecasts will remove certainty:

- It will create a moveable target that will create a perception that there may be winners and losers depending on when projects are completed compared to changes in the amount of renewable energy required for that year;
- There are too many factors outside anyone's control especially climate changes that can change energy demand significantly from year to year; and
- Nothing that has happened over the past 4 years gives the renewable energy sector any confidence that forecasting of energy demand is accurate 12 months out let alone 5-6 years out.

In summary the review should find that:

- **The existing interim annual targets for LRET and the 2020 target of 41,000GWh are appropriate and should be retained;**
- **It is highly likely that this will result in Australia, generating at least 20% of annual energy requirements from renewable sources; and**
- **In the aim of maintaining certainty for investors during what will be a critical period for the industry, further reviews of the RET should be delayed for at least 4 years.**

How should changes in pre-existing renewable generation be taken into account? What are the implications in terms of economic efficiency, environmental effectiveness and equity?

Changes to the output of pre-existing generating capacity are (largely) outside of the control of the government ~ weather patterns, water harvest levels and the sustainable management demands of water systems are significantly affected by changeable climate conditions. So LRET targets should relate only to what increases in generating capacity have been are sought above and beyond the pre-existing capacity.

In essence KPE contends that management of Australia's waterways should be driven by environment sustainability factors with renewable energy output levels from pre-existing hydro capacity being a consequence of these management practices rather than visa versa.

Is the calculation of individual liability using the RPP the most appropriate methodology? Is it appropriate to set the RPP by 31 March of the compliance year?

Given the above comments, the review should not be surprised the KPE restates that the only certain driver of LRET surrender should be ensuring Australia reaches the ultimate target of a minimum of 41,000GWh of renewable capacity introduced into the system by 2020.

If that LRET is to be achieved, renewable investors have to have certainty that they will receive payment for all power generated from their projects meeting the interim targets of the LRET between now and 2020.

We would suggest that recent history indicates that the existing RPP calculations have NOT provided the required level of certainty to the sector.

KPE contends that individual surrender volumes need to be calculated in a two step process that restores certainty to the renewable market place:
On or before February 28 of any one year before 2020, confirm two surrender volumes:
The current year provisional surrender ~ based on the RPP with surrender being required in four quarterly installments on April 30, July 31, October 31 and January 31 respectively; and
A "reconciliation surrender" closing off the previous year ~ which picks up the difference between the previous year's actual surrender and the total REC creation required in that year's LRET interim targets; assigned across retailers based on their percentage of the previous year's total electricity market. This surrender being required on April 30 of the current year.

KPE also notes that despite public statements that renewable energy is purchased first whenever available, there have been many instances observed where local wind farms have stood idle when they could be generating given the wind conditions.

KPE contends that the review should recommend government intervention into the energy market to require that power generated from renewable sources is taken into the network before power generated from fossil fuels.

Is the shortfall charge set at an appropriate level to ensure the 2020 target is met? Are there other issues relating to the liability or surrender framework the Authority should consider?

KPE suggests that there is no need for a shortfall charge IF the government is able to structure a properly regulated system that ensures that large scale generators are able to sell the volume of RECs required each year to meet the interim LRET targets leading up to 2020.

KPE believes that the suggestion we have proffered above would achieve that.

If the review decides to retain a shortfall charge based on a history of electricity retailers seeking to evade their responsibilities, then KPE suggests that the charge should be set at a level 20% above the previous year's average LREC price. Further, KPE sees no reason why the shortfall charge should not be tax deductable.

KPE contends that the Shortfall Charge should only be used as a penalty against non-compliance and should not be used as a behind the scenes REC price setting device.

What do you consider to be the costs and benefits of having a separate scheme for small-scale technologies?

The benefits are obvious: The establishment of a separate scheme for small scale technologies restored a level of certainty to the LREC marketplace that had failed due to the influx of deemed (and multiplied) RECs into the marketplace during 2009/10 as a result of the policy decision to convert a grant based assistance scheme to one paid for by all electricity consumers.

The costs of having the separate scheme are (perhaps) less obvious. There should not be any direct cost to government. The charge imposed by the Clean Energy Regulator for the creation of every SREC should meet any direct cost to government required to administer a separate scheme.

As it is structured at the moment though, the scheme does impose an inflated cost onto consumers relative to the volume of power produced (or replaced) each year from small scale technologies. Over the past 3 years consumers across the nation have been asked to pay for REC volumes between 30 and 75 times what should have been created given the systems' actual generating capacity in any one year.

Should there continue to be a separate scheme for small-scale technologies?

At many places through the issues paper it is clearly stated that the Small-scale Renewable Energy Scheme (SRES) was established to assist households, small business and community groups with the upfront cost of installing small-scale renewable energy systems.

KPE contends that if the small scale sector is to meet the SRET target of at least 4,000GWh of power produced annually from 2020 onwards, it is absolutely necessary to maintain a separate scheme of assistance for small scale technologies.

The question that KPE believes the review should answer is, rather, "***Should the assistance to households, small business and community groups to meet the up-front cost of installing small scale energy systems be provided via the current REC based scheme".***

KPE suggests that there are more appropriate methods to provide that assistance whilst retaining the aim of meeting the SRET 2020 target. These will be dealt with through our answers to further questions with respect to the review of the SRET.

Is the uncapped nature of the SRES appropriate?

KPE suggests that the answer to this question lies within the answer to the question "are there benefits to consumers (and indeed Australia) from the installation of small scale distributed generation capacity embedded into the Grid".

KPE suggests that the review must accept that there are significant benefits to both consumers and Australia arising out of the installation of approved small scale technologies into the Grid:

- It is accepted that the main driver for electricity price rises in Australia has been (and will continue to be) the need to rehabilitate and upgrade the Grid to meet demand requirements of the wider community. The statement often used is (as we recall) "for every one kilowatt air-conditioner installed into a home, government or private power distributers have to spend $5,000 on upgrading the Grid to maintain its integrity;
    - This investment is factored into power prices annually using a formula designed to give the distributors a guaranteed return over an agreed period of time;

  - As an aside to comments made about the need to provide certainty to investors in large scale renewable technologies, obviously the electricity distributors have convinced governments across the nation to provide certainty of a return for their expenditure on the Grid. The review should ensure investors in renewable energy sources receive the same certainty.
- Conversely, KPE contends that it is logical to assume that every small scale installation ameliorates the need to spend similar amounts of money per kilowatt of replaced demand or peak generation capacity;
- Far from being a bit player in the overall scheme to meet Australia's target of 45,000GWh, it has become increasingly obvious over the past two years that solar PV alone has the potential to contribute around 8-10,000GWh annually to the renewable energy equation by 2020 if existing rates of installation are maintained. This provides an exceptional backstop for the overall RET of 45,000GWh by 2020.

The irrefutable conclusion that should be drawn from that contention is that of course, both the SRET and support mechanisms designed to assist installations should be uncapped.

What do you see as being the costs and benefits of an uncapped scheme in terms of economic efficiency, environmental effectiveness and equity?

As mentioned above, KPE reiterates that the review must consider the drivers for the increased cost of electricity in the Australian marketplace. By far the largest driver of change has been the costs involved in network upgrades required to meet demand increases.

Statements by industry figures suggest that network upgrades have caused electricity cost increases of more than 40% over the past 5 years compared to an increase of only 2-3% resulting from the cost of renewable energy. The same people are forecasting similar increases going forward driven by the same issues.

KPE suggests that any assessment of the costs and benefits of small scale technologies must consider the mitigation of Grid upgrade costs that would otherwise been required had not approximately 1.50GW of small scale generation been installed over the past 2-3 years.

KPE asserts that the review should recommend the uncapped SRES remains in place unless and until there has been a "whole of system" analysis completed that identifies all of the cost/benefit implications of distributed generation embedded in the Grid and concludes to cap the SRES.

As far as environmental effectiveness is concerned, KPE suggests that continuing an uncapped SRES has the potential to future proof the overall 45,000 GWh RET against factors outside the federal government's direct control that might reduce the uptake of LGS capacity.

Continuation of an uncapped SRES is also called for from an equity viewpoint. It is simply not fair that those people who have managed to install solar PV over the past 3 years should be the only Australians allowed to enjoy the benefits. Indeed, given that the SRES effectively spreads the costs of installation subsidies across the whole community through their electricity pricing, it would be counter to any consideration of equity to now cap the scheme.

There is one equity issue which is rarely discussed. Given that the SRES effectively spreads the cost of installation subsidies across every electricity consumer in the nation, it seems somewhat inequitable that residents of social housing rarely have access to the benefits of the reduced power bills that flow from having a solar system installed onto their household.

KPE suggests that the review should make an aspirational recommendation for State Governments to install small scale technology systems onto Social Housing across the nation.

Is the SRES driving investment in small scale renewable technologies? Is it driving investment in skills?

There is no doubt that the SRES is driving investment in small scale technologies across the nation. Again, KPE suggests that the review should be asking a different question though.
KPE contends that the question should rather be, "what level of assistance to install small scale technologies is appropriate given the benefits created, and, how should that assistance be paid for and recouped to minimize the impact on electricity consumers who do not choose to install small scale systems onto their properties.

What is the appropriate process for considering and admitting new technology to the SRES?

The issues paper refers to the Review of Specific RET Issues by the Council of Australian Governments' which considered whether any new small-scale technologies should be included in the SRES. That Review recommended against extending eligibility to any new technologies, ***primarily because it would add to the cost of the scheme due to its uncapped nature***. KPE asserts that this again highlights the ongoing predication for everyone involved to restrict consideration of the effects of small scale technology installation to ONLY the direct cost of the assistance schemes.
KPE suggests that the aim of the SRES is to provide a market mechanism for assisting consumers to install small scale technologies onto their properties. KPE contends that before amitting any new technology to the SRES, the CER should simply ensure that it is environmentally appropriate. Consumers will decide on new technology's cost competitiveness and make their choices on what technology is installed accordingly.

Is it appropriate to include displacement technologies in the SRES?

If new displacement technologies are not eligible for inclusion (The Review of Specific RET Issues concluded new displacement technologies were better suited to support under an energy efficiency scheme, rather than the RET, which was designed to support electricity generation) then KPE contends that Solar Hot water and Air Heat Pumps should also be transferred from the SRES to an energy efficiency scheme.

Should additional eligible technologies be limited to generation technologies?

KPE agrees that eligible technologies should be limited to generation technologies.

Is deeming an appropriate way of providing certificates to SRES participants?

KPE suggests that provided the SRES was administered effectively, it could be considered an appropriate method to provide installation assistance for consumers who install small scale technologies. But that is not the question.
It is certainly an efficient method of providing Renewable Energy Certificates to SRES participants. Certificates for 15 years' production of renewable power are created and sold in one transaction. But that is not the question either.
Is deeming an appropriate way to provide certificates IS the question and KPE contends that the answer should be NO it is not appropriate. Why not:

- The volume of STCs being created and surrendered each year bear no relationship to the volume of power being generated from small scale renewable systems;
- The system is designed to assist consumers to install small scale technologies that have a life of 15-40 years. It is a market distortion in electricity pricing to impose the full cost of that assistance program onto the wider consumer group in the year that it is paid; and

- The assistance package seems to be created from an assumption that installation of small scale technologies only benefits the property owner who installs it.

KPE contends that the assistance package should actually be paid directly to the property owner by their electricity distribution companies.

The distribution companies would/could, in turn, recover the assistance payments through a combination of the same mechanism by which they recover other upgrade costs to the Grid over an agreed time frame combined with the sale of STCs generated by the small scale systems in real time through the existing surrender program for electricity retailers. Deemed annual generation of small system RECs could be achieved by Distributors with efficiency levels similar to the current system. That's what computers are good at!

KPE suggests that the proposed system is more appropriate as a method of assisting consumers to install small scale generations systems onto their properties:

- The costs of the assistance program will be spread over a much longer time frame, reducing the immediate impact on electricity pricing of the SRES;
- If, as we have hypothesized, the installation of a 1kW small scale generations system at a consumers' property mitigates the need to upgrade the distribution Grid to meet the demands of a 1kW air conditioner on their (or their neighbours') property, then the SRES will in fact act to reduce future price rises required to meet grid upgrade requirements – spreading the benefit of distributed and embedded small scale generation across the wider consumer group; and
- The RECs generated by the small scale systems are real time rather than brought forward through the deeming process.

Such a system could be brought into play with a transition that allowed the existing SRES scheme to conclude the surrender of all SREC's created during 2011 and 2012 at the agreed $40 value.

The only question left to be answered would be for government and the Distributors to nominate/negotiate an appropriate amount for the assistance package.

KPE further asserts that the uncapped nature of the SRES should not be allowed to cloud the discussion. Distribution and transmission cost increases over the past 5 years far outweigh the cost impact of renewable energy generation; and this scheme, if implemented, would reduce the current year impact of small scale generation systems in any case.

What are the lessons learned from the use of multipliers in the RET? Is there a role for multipliers in the future?

KPE re-iterates that we do not consider an artificial creation of STCs to be either appropriate or equitable as a means of assisting property owners to install small scale generation systems.

Are there other issues relating to the liability or surrender framework the Authority should consider?

KPE contends that the inherent problems faced by the CER in trying to predict the level of small scale installations suggests that the existing liability and surrender framework was always doomed to fail.

Issues outside the CER's control which have caused the surrender framework to fail include:

- The ability of the government to intervene and change the multiplier reduction timetable for the Solar Credit Scheme;
- Continual changes to Feed-in-Tariff schemes by various state governments; and
- The ongoing fall in component prices largely driven by the reduction in demand for solar PV from Europe and the USA following the GFC.

As KPE is sure the review understands, the nominated surrender for 2011 was approximately 50% of the actual STC creation (some 20 million RECs) and from projections KPE has seen, the 2012 surrender will be some 10 million STCs short again .

Combine that with a decision apparently made after the scheme was devised to allow trading of SRECs outside the clearing house and the loading it applies to consumer electricity pricing and KPE contends that the existing surrender framework has indeed failed both the industry and consumers.

The other issue relating to the surrender framework that the review must consider is the Clearing House operation

KPE asserts that the Clearing House has never operated to facilitate the original reasons behind the separation of small and large generation systems. Specifically:

- Whereas the issues paper asserts that the Clearing House was established to create a ceiling for SRET prices, KPE contends that the SRES and Clearing House system was originally conceived to stabilize SRET prices at $40+GST and therefore put a floor under LGU REC prices;
- The issues paper states that "while the $40 price is guaranteed, there is no guaranteed timeframe". KPE contends that this statement only appeared on the Clean Energy Regulator's web site after it became apparent that there was a significant over supply of SRET certificates in the marketplace on the date of the first surrender; and
- KPE contends that a system which was, according to the issues paper, originally designed to provide "to encourage timely purchase of STCs by liable entities and, hence a steady cash flow to STC holders" has to be assessed against a reality whereby SRECs created in February 2011 will not be traded out of the Clearing House until April 2013 at the earliest. So much for a system designed to create a steady cash flow to STC holders.

Is the STC Clearing House an effective and efficient mechanism to support the operation of the SRES?

The Clearing House should have been an effective and efficient mechanism to support the operation of the SRES as it is. It isn't.

The Clearing House has effectively locked away $242 million of funds that should be supporting the small scale generation sector to install more systems.

The concession granted to large generation/retailers to allow trading of STC's in a free market outside the Clearing House combined with the results of market interventions by both the federal and all of the state governments has combined to reduce assistance paid to consumers/installer by 25-30%

Should changes be made to the Clearing House arrangements? If so, what would be the costs and benefits of any suggested alternative approaches?

KPE has already outlined an alternative structure for a future assistance package that would in effect confine the operation of a clearing house to transactions between distributors and retailers. That would obviously create a need for significant change to the Clearing House operation to suit the new arrangement.

In the event that the review overlooks our suggestions and recommends retention of the existing SRES and its' operating structure, KPE suggests that significant changes need to be made to Clearing House arrangements:

- The secondary market should be closed down – forcing all STC transactions through the clearing house;
    - Same party transactions can be catered for by allowing surrender of STC's registered in the name of liable parties without a requirement for them to be processed through the Clearing House;
- The annual shortfall should be added to the next year's first surrender target (starting in 2013 when the combined 2011/12 shortfall should be cleared through), ensuring that (from April 2013 onwards) no STC takes longer than 6 months from creation to purchase;

It must be admitted that, compared to the past 2 years, the above changes will come with a cost. They will stabilize the price of STCs at $40+GST, in effect increasing the cost to consumers of the SRES surrender each year. It should be noted however, that stabilizing the STC value at $40+GST was the stated driver for the original separation of the RET into LRET and SRET so the change would act to return the SRES to its design state.

The benefits of this alternative approach is to restore certainty to the Solar PV industry, returning the SRES to a system that achieves the goals set for it.

Whatever changes are recommended, KPE asserts that it is critical for investor confidence that the timing ensures that all STCs held in the Clearing House are sold through as soon as possible at the current $40 value.
The review must recognize that in many cases the STC holders "paid" customers $40 per STC for the certificates having been guaranteed that price by the Australian Government. Any recommendation which changes that outcome MUST be avoided.

Is $40 an appropriate cap for small-scale certificates given the recent fall in cost of some small-scale technologies, particularly solar PV?

KPE again asserts that this begs the question of whether assistance to install small scale technologies onto consumer properties should be paid through a system of deemed generation of STCs.
KPE has already offered a structure for installation assistance which we believe would be more appropriate as well as reducing the impact of the assistance payment on other electricity consumers.

The real question that should be asked here is "is $40 an appropriate price for any REC".
The issues paper seems somewhat contradicted on what should be the ongoing price of RECs.
In section 4.1 (Carbon Pricing Mechanisms) the paper notes that *"For example, say a wind farm's average cost of production is $80/MWh. If the wholesale price of electricity was $40/MWh, the wind farm would need an extra $40/MWh to be viable. The price of certificates under the RET would need to be at least $40 in order for the wind farm to be commercially viable.*
The carbon price increases the cost of fossil fuel generation, which, in turn, would increase wholesale electricity prices. For example, if the price of carbon units increased the wholesale price of electricity from $40/MWh to, say, $60/MWh, the wind farm would now only require a 'top-up' of $20/MWh in order to be viable. So long as certificate prices under the RET were at least $20, the wind farm would be viable"
On the other hand, in Section 5.1 the Issues paper contradicts that view by saying *"work undertaken for the Commonwealth Treasury, the Australian Energy Market Commission and the Australian Energy Market Operator each indicate that the 41,000 GWh target may not be met without a carbon price to increase the wholesale price of fossil fuel generation, making renewable energy generation relatively more competitive"*. In other words, if the carbon price lifted the wholesale price of electricity to $60/MWh, the increased return of $100/MWh is required to ensure enough investment in large scale renewable energy.

KPE asserts that the original separation of the RET into SRET and LRET was designed to ensure that LREC prices stabilised around a floor of $40/MWh.
The Review must have regard to this when making any recommendation that has the potential to affect the price of either LRECs or STCs.

The second question that should be asked and answered here, is "what are the wider benefits of distributed small scale solar PV embedded into the grid?" and therefore "what is the level of assistance that should be paid to support wider installation of embedded solar PV throughout the Grid?"

As KPE has suggested repeatedly in our submission, once those questions are answered, it should be possible to create a framework for payment of that assistance which is equally efficient, more appropriate, more relevant to the goals of the RET and importantly, more equitable to the wider community of electricity consumers.