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Dear Anthea

REVIEW OF THE RENEWABLE ENERGY TARGET

The Australian Industry Group welcomes the opportunity to comment on the Climate Change Authority's (CCA) Renewable Energy Target (RET) Review Issues Paper.

Ai Group has a broad and diverse membership, including a wide range of more- and less-intensive energy users; makers of equipment and providers of services for use in renewable and non-renewable energy systems; and electricity generators of all kinds. These businesses are all affected by the RET in different ways, and we have benefitted from their input and expertise.

There are many views within industry regarding the RET. Some businesses are strongly opposed to the RET, viewing it as an unnecessarily expensive way to reduce emissions of greenhouse gases, and would like to see it abolished. Other businesses strongly support the scheme, seeing it as important to Australia's future energy system and economic base. Most businesses are conscious of the steep rise in retail electricity prices in recent years, driven largely by immense investments in regulated network infrastructure, and would like to see downward pressure on prices. Many businesses are also vocal about the need for a stable, predictable, credible policy environment that minimises the potential for sovereign risk.

We have consulted closely with our members and have taken these positions into account in determining our detailed response to the questions asked in the Issues Paper, which is annexed to this letter. On balance, given that we have already travelled some distance down the road with the RET, it is not clear that removal of the scheme is practical at this point, nor that the benefits of possible removal would substantially outweigh the costs. The better approach is to pursue steps within the existing framework to reduce costs without compromising investment and policy certainty. Measures to contain the costs of the RET to trade exposed industry should be maintained, streamlined and strengthened.

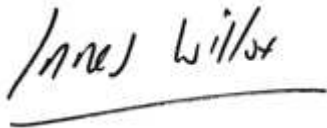
The most urgent area for cost control is the Small-scale Renewable Energy Scheme's support for small solar photovoltaic (PV) systems, which accounted for 80% of RET certificate issuance in 2011 and has dominated gross scheme costs for the last few years. The attractiveness of PV is increasing rapidly as the cost of panels drops sharply and retail electricity prices rise. Public subsidy needs to scale back over time as the technology

becomes more competitive if we are to avoid further unsustainable spikes in installation that inflate the cost of the subsidy. We propose a formula approach for adjusting the degree of support to small-scale PV over time, which would contain costs while providing certainty to the industry and fair treatment to its customers.

The RET review should be an opportunity for the Climate Change Authority to look beyond the *Renewable Energy (Electricity) Act* to identify other policies at all levels of government that significantly affect the costs and benefits of the RET. Policies do not operate in isolation, and it is important that a national expert body consider the full picture. This broad view will be necessary as the Authority conducts its further reviews of the *Clean Energy Act*, the National Greenhouse and Energy Reporting system, and the Carbon Farming Initiative in coming years.

Any questions about this submission should be directed to our adviser Tennant Reed at tennant.reed@aigroup.asn.au or at 03 9867 0145.

Yours sincerely,

A handwritten signature in black ink that reads "Innes Willox". The signature is written in a cursive style and is positioned above a solid horizontal line.

Innes Willox
Chief Executive

AUSTRALIAN INDUSTRY GROUP SUBMISSION TO THE REVIEW OF THE RENEWABLE ENERGY TARGET

About Ai Group

Ai Group is a peak industry association in Australia which along with its affiliates represents the interests of more than 60,000 businesses in an expanding range of sectors including: manufacturing; engineering; construction; automotive; food; transport; information technology; telecommunications; call centres; labour hire; printing; defence; mining equipment and supplies; airlines; and other industries. The businesses which we represent employ more than 1 million employees.

We are an organisation committed to helping Australian industry with a focus on building competitive and sustainable industries through global integration, skills development, productive and flexible workplace relations, infrastructure development and innovation. Our legitimacy comes also from our role in and connection with the broader community.

Ai Group members operate small, medium and large businesses across a range of industries. Ai Group is closely affiliated with more than 50 other employer groups in Australia alone and directly manages a number of those organisations.

Introduction

The Australian Industry Group did not support the introduction of the expanded RET scheme in 2009. Nonetheless the expanded targets became law and major investments have been made on the basis of those laws, with further investments in the pipeline.

The RET imposes costs on electricity retailers which they seek to recover from their customers, including industry. The gross costs of certificates created in 2011 was likely around \$2-2.4 billion, of which 80% was for small scale solar photovoltaic (solar PV) systems.¹ The Australian Energy Market Commission has separately projected the gross cost to households in 2012-13 at 0.51 cents per kilowatt hour (kWh) or around 1.75 per cent of the retail electricity price of 29.18 cents per kWh.²

¹ Based on more than 68 million Large-scale Generation Certificates and Small-scale Technology Certificates created in 2011, and assuming an average certificate price of \$30 to \$35. In practice LGC and STC prices differ and have varied greatly over time. A significant portion of these certificate costs were not passed on to energy users in 2011 but were effectively held over to 2012; the Small-scale Technology Percentage was underestimated for 2011 and was increased for 2012 to make up the difference.

² This projection was made in 2011; the real figure for 2012-13 is likely to be higher because of additional costs left over from 2011. However the 2013-14 projection, at 0.54 cents per kWh, remains plausible. See AEMC, *Possible Future Retail Electricity Price Movements: 1 July 2011 to 30 June 2014* (December 2011) 18 [<http://www.aemc.gov.au/market-reviews/completed/possible-future-retail-electricity-price-movements-1-july-2011-to-30-june-2014.html>].

The net cost to electricity users is significantly reduced by the additional electricity generation capacity the RET brings on: the extra supply can put downward pressure on wholesale electricity prices; small distributed generation reduces the energy bills of those who install it; and distributed generation can also potentially reduce future electricity network augmentation needs, if network design and regulation keep pace.

Businesses recognised as energy intensive and trade exposed are exempted from a significant portion of the RET's gross costs, though the exemption is far from complete and many trade-exposed businesses do not qualify. Despite these exemptions and countervailing savings, the scheme does add to net costs for most electricity users.

Given the larger and ongoing rise in energy prices for other reasons, including network investment and carbon pricing, this raises the question of whether the RET should be abolished – particularly in light of the intense competitive pressures on Australian industry. Some of Ai Group's members have raised this possibility, while others have serious concerns. Abolition of the RET would certainly be a major step, and the implications would need careful consideration.

- Several gigawatts of generation capacity have been constructed so far to meet existing RET targets: largely wind farms and widespread solar PV and solar hot water systems, but also expanded hydroelectric capacity, bagasse cogeneration in the sugar industry, black liquor combustion in the paper industry, and combustion of gas and biomass in landfills and waste treatment. These investments would need to be secured in any abolition, either through several billion dollars in compensation via the Budget, or through an ongoing payment by electricity retailers, and ultimately customers, in a closed, grandfathered version of the RET.
- Even a fully compensated abolition of the RET could have implications for risk and financing costs in the electricity sector. It would certainly have serious implications for manufacturers, vendors and installers of small-scale solar PV and solar hot water, unless publicly funded rebates for these technologies were re-instituted.
- In the absence of additional generation brought on by the RET, supply in the electricity market will be tighter. This would imply somewhat higher wholesale prices, particularly if new gas-fired generation is required to meet demand. Such price increases would erode some of the direct saving on gross RET costs.
- Renewable generation substitutes for coal- and gas-fired generation, displacing greenhouse gas emissions that would otherwise be made. This displacement is built into current projections for Australia's future emissions and the size of the task to reach the bipartisan commitment to reduce emissions to 5% below 2000 levels by 2020. The RET capacity not yet built would plausibly displace around 30 million tonnes of emissions in

2020. Under Australia's emissions trading scheme, the emissions reduction targets would still be met – a larger number of emissions permits would need to be imported from Europe than otherwise, at a cost of \$450 - \$750 million annually.³ If an internationally linked cap-and-trade scheme is not in place in 2020, additional Australian abatement would be needed if the targets were to be met, plausibly at a cost of \$900 - \$1,200 million annually.⁴

Accordingly we would be concerned by changes to the RET that affect the viability of investments that have already been made or are planned. Moreover, many businesses have commented on the importance of providing a stable policy environment for future investment in energy generation, whether renewable or otherwise. The RET has been through several major changes in recent years, and any further adjustments need caution if they are not to reduce the credibility and reliability of energy policy as a whole.

Ai Group also recognises the importance of policies which try to lower the long-term costs of emissions reduction. Renewable energy will undoubtedly play a major role in Australia's future energy system and in the transition to a low-emissions economy.

On balance, given that we have already travelled some distance down this road, it is not clear that the removal of the RET is practical at this point, nor that the benefits of removing the RET would substantially outweigh the costs. The better approach is to pursue steps within the existing framework to reduce costs without compromising investment and policy certainty. Ai Group will continue to advocate for changes to address what we have always seen as the major issue with the RET - that it is an unnecessarily expensive way to meet Australia's near-term targets for reducing greenhouse gas emissions. The scheme is law, and represents a public commitment to investors that needs to be respected. However, many of our members see it as very important that the costs of the RET be no higher than absolutely necessary. One important way to achieve this is a steady, predictable lowering of the subsidy for small solar photovoltaic (PV) systems as their costs decline and energy prices rise. This point is discussed in further detail below.

Scope of the Review

There are many policy issues beyond the RET that also affect the climate for renewable energy investment. We understand that it is outside the scope of this review to make recommendations on these policies, particularly given the limited time available. However, given that the RET Review will be considered as input to Council of Australian Government (COAG)'s effort to rationalise carbon reduction and energy efficiency policies in Australia, it is important that the

³ Assuming a range of carbon prices in the European Union Emissions Trading Scheme of between \$15 a tonne and \$25 a tonne in 2020.

⁴ Assuming a marginal Australian abatement cost in 2020 of \$30 to \$40 per tonne, consistent with many public and private sector assessments.

CCA considers and discusses interactions between the RET and other policies at the Federal, State and local government levels that impact investment in renewable energy in Australia. This discussion should, at a minimum, identify:

- existing policies with the potential to inhibit the uptake of renewable energy in Australia, particularly those that raise the costs of the Large-scale Renewable Energy Target (LRET). An example is restrictive State planning laws that effectively rule out the construction of wind turbines in areas that are ideal for that purpose;
- existing policies with the potential to accelerate the uptake of renewable energy in Australia, particularly those that raise the costs of the uncapped Small-scale Renewable Energy Scheme (SRES). An example, now largely addressed, is the over generous and badly coordinated State feed in tariffs that unsustainably increased the take-up of solar PV; and
- how these policies will impact the economic efficiency, effectiveness and equity of the RET scheme.

If this broader policy context is not considered there is a risk that costs of the RET will remain higher than absolutely necessary, or that the effectiveness of the RET in promoting investment in renewable energy in Australia could be reduced. Accordingly, we do not see how the CCA can provide accurate comment on the operation of RET scheme without considering this broader context.

While we would prefer that interactions between the RET and other policies were identified as part of the current review, it could also be something that the CCA reviews separately. In either case, such a review would be of most value if it were available before April 2013 when the COAG Taskforce will undertake an independent assessment of the outcomes of a number of State and Federal reviews and provide advice to COAG on whether any further action is required to rationalise carbon reduction and energy efficiency policies in Australia. We believe the CCA is well placed to do this review; the RET Issues Paper makes a good start to identifying those policies that will act to inhibit or accelerate the uptake of renewable energy in Australia and how they will impact the effectiveness of the RET scheme. Further analysis is included in the *Draft Energy White Paper* released in December 2011, and will make this task less onerous.

We understand that it will be the role of the COAG Taskforce to assess the findings of the RET review, in conjunction with findings of State and Territory reviews of climate change policy, and advise COAG on which policies should be rationalised or discontinued and the timeframes for implementing the recommended changes.

More broadly, we note that the RET review is but the first of several important review tasks which the CCA will undertake, including the emissions cap reviews under the *Clean Energy Act* and the reviews of the National Greenhouse and Energy Reporting system, the Carbon Farming Initiative, the Renewable Energy Target again in 2014 and the Clean Energy scheme itself.

None of these reviews can be conducted in isolation, as the various schemes are closely connected. And all of these reviews will need to involve scrutiny of the broader policy environment, since State (and sometimes local government) laws and policies affect mitigation, reporting obligations, land use, energy regulation and more. There is a critical responsibility for policy makers at all levels of government to consider wider ramifications and interactions when legislating or introducing new measures relevant to energy and climate policy. It is important that the CCA, as a national expert body, reinforce this responsibility by casting a wide net across relevant policies in its reviews. This initial RET review can set a good precedent by taking account of State policies wherever practical.

Answers to specific questions raised by CCA

Large-scale Renewable Energy Target (LRET)

- 1. 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?***

Ai Group believes that the LRET – to increase renewable energy generation scaling up to 41,000 gigawatt hours in 2020 – is a challenging and difficult target, particularly given the eight short years remaining to meet it. In combination with the small scale component, and the subdued growth in electricity demand in the latest projections, this target is likely to see Australia exceed the Commonwealth Government’s commitment to ensuring ‘the equivalent of at least 20 per cent of Australia’s electricity supply comes from renewable resources by 2020’¹. However, there are also particular risks around fundamental changes to the LRET and caution is needed in making any changes to the RET policy that increase uncertainty over energy policy. These changes would come at a time when the energy industry is already facing heightened risk and uncertainty over energy policy.

A recent Ai Group survey suggests that climate policy uncertainty is already starting to impact business investment in energy efficiency and greenhouse gas abatement projects. Industry research suggests that this uncertainty is a growing concern for foreign investors and that it has also led banks to charge a premium on loans for energy projects.

There is certainly no case to increase the LRET target, as some have advocated. Such a move would go well beyond meeting the legitimate expectations of investors based on existing policy. It would also raise expected costs for energy consumers, particularly given weak expected demand growth, and assuming a greenhouse gas emissions cap is

in place from 2015, an increased target would not drive additional reductions in Australia's net contribution to global emissions.

On the other hand, lowering the existing targets would raise serious questions. Would it be a one-off adjustment, or part of an ongoing process? How could confidence be established that an adjustment was for once and all, and what would happen if electricity demand projections declined further – or rebounded?

Certainly, ongoing adjustments to the 2020 targets would mean intense uncertainty. The nature of investment decisions in long-lived, capital intensive assets means that such uncertainty would be severe for new investment, likely raising financing costs or leading to more frequent imposition of the shortfall charge. It would also mean heightened risks and lower returns for businesses that have invested on the basis of existing law.

2. *Is the target trajectory driving sufficient investment in renewable energy capacity to meet the 2020 target? How much capacity is needed to meet the target? How much is currently committed? Has the LRET driven investment in skills that will assist Australia in the future?*

Investment under the LRET has been lower over the past several years than was once expected, largely because of relatively lower certificate prices driven by the continuing overhang of certificates generated from solar PV and solar hot water prior to the separation of the RET into large- and small-scale components. Thus while the existing targets have been easily met, it will be challenging to approve, construct and commission sufficient new capacity to meet the 41,000 GWh target in just eight years. This is particularly so if unduly tight State and local planning practices rule out substantial resources from development. Adjustments to the policy that decrease investor confidence would make this capacity harder to build. If the targets are missed, the main consequence would be that retailers pay, and pass on to their customers, a penalty for any shortfall until such time as further capacity is constructed. This situation is worth avoiding.

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

Ai Group believes that there is no case for the LRET target to continue to rise after 2020. That does not mean that the role of renewable energy cannot or should not grow beyond this point, merely that wider market forces – including the carbon price - should drive any further uptake beyond 2020. The issues paper acknowledges that the RET and the carbon price interact in terms of prices and the pattern of greenhouse gas abatement. As

the paper states, “certificate prices under the RET can be viewed as the ‘top up’ level of subsidy required to make renewable energy viable”.

As carbon prices mature over time, while renewable technology costs decline, certificate prices will eventually fall to zero as renewables become competitive within the wholesale electricity market. The LRET would thus be expected eventually to phase itself out, with further adoption driven by the relative competitiveness of renewable and other energy technologies.

As discussed above, given the ambitious nature of the current target and the risk of introducing further uncertainty through revisions, Ai Group would be very concerned about any moves to raise the post-2020 targets. Maintaining the 2020 target between 2020 and 2030 provides an opportunity to limit any shortfall that energy retailers will have to pay should this target not be met, and will not compromise Australia’s overall abatement effort.

The question of post-2020 targets could potentially be reconsidered in the 2016 RET review, when there will be greater clarity about progress in meeting the existing targets, as well as about technology costs, future energy forecasts and carbon prices.. However, care will need to be taken to ensure that the timing and conduct of any review of future targets does not compromise long-term investment certainty.

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

Yes. The choice of a headline percentage-based target is to a significant extent arbitrary, and the choice of a fixed gigawatt hour target to match the percentage goal is necessarily based on point estimates of future consumption. The fixed gigawatt hour target itself, however, then becomes a stable basis for investment decisions. Changing the target to a percentage-based target, which would bounce up and down in line with fluctuations in demand, would adversely impact market certainty for renewables proponents and may well increase the cost to energy users of achieving the headline 20% target by raising risks, and hence financing costs, for renewables proponents, and by increasing the likelihood that shortfall charges are incurred. Ai Group would like to avoid steps that increased uncertainty within the RET and add to its costs. The target should remain a fixed gigawatt hour target.

5. ***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? 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?***

For the reasons outlined above an ongoing adjustment process for the current targets is likely to undermine confidence and raise costs. Any future process to set post 2030 targets should obviously consider the most up-to-date energy forecasts.

Ai Group also believes that changes in pre-existing renewable generation should not be taken into account. Such variations are relevant for the political 20% target, which incorporates the output of LRET, SRES and pre-existing generation. But they have no direct relevance to the achievement of the legal LRET target itself or the investment certainty issues around this. The potential to raise the LRET target if, for instance, a future drought suppresses generation from pre-existing hydro capacity, would add to uncertainty and magnify the impacts of drought on the rest of the economy.

6. ***What are the costs and benefits of increasing, or not increasing, the LRET target for Clean Energy Finance Corporation-funded activities? What are the implications in terms of economic efficiency, environmental effectiveness and equity?***

Ai Group is opposed to the idea of increasing LRET targets to account for Clean Energy Finance Corporation (CEFC)-funded activities. Such an increase would add to the costs borne by energy consumers, and it would increase uncertainty for the energy sector, particularly given the difficulty of predicting the number, nature and impacts of CEFC funded projects out to 2030.

The existing LRET target is already ambitious and will be challenging for liable entities to meet. There is a risk that the target becomes entirely unattainable if it is further increased to account for CEFC-funded activities. The CEFC can potentially play a useful role in facilitating the achievement of the RET and even in lowering its costs. It would be perverse to effectively undo this contribution. Incorrect assumptions could easily be made about the impact of CEFC projects, especially for broader or more infrastructural projects like transmission lines to open up new resources. Moreover, there would be administrative issues to consider; for example, in deciding when the target would be increased and how it would ramp up over time.

It is also worth noting that the application of an emissions cap from 2015 means that, whatever other effects and longer-term impacts they may have, neither CEFC nor the RET will directly result in additional reductions in net emissions below the cap.

7. *Is the calculation of individual liability using the Renewable Power Percentage the most appropriate methodology?*

Ai Group has no input to make on this question.

8. *Is it appropriate to set the Renewable Power Percentage by 31 March of the compliance year?*

Ai Group has no input to make on this question.

9. *Is the shortfall charge set at an appropriate level to ensure the 2020 target is met?*

The shortfall charge does not need to be any higher to ensure that the 2020 target is met. The main threats to the achievement of the 2020 target are other policies which impact on the effectiveness of the RET scheme, such as planning regulations, and the risk of frequent amendments to scheme that adversely impact on market certainty.

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

Ai Group has no input to make on this question.

11. *What are the costs and benefits of the current exemption arrangements? Are they appropriate?*

Exemptions under the RET have the effect of blunting the gross increase in electricity costs to vulnerable businesses that would otherwise result from the scheme. Until relatively recently, comparatively cheap electricity was a key competitive advantage for Australian industry. A number of factors, including increased network costs, higher fuel prices and closer links with global fuel markets, carbon pricing, the expanded RET and other policies are diminishing this competitive advantage.

The partial exemption framework helps to alleviate the impact that RET costs would otherwise have on the electricity costs confronting trade exposed industries, and Ai Group believes it is essential to maintaining Australia's competitiveness. This is particularly important given the intense pressures on trade exposed firms from the high

dollar and rising energy prices. Indeed, the partial exemption framework should be enhanced, as argued below.

12. *The self-generator exemption pre-dates the emissions intensive, trade exposed partial exemptions – are both required? If so, why?*

Ai Group supports the recommendation of the COAG review that the self-generator exemption should be retained in its current form. The overlap of this exemption with the current partial exemption framework is not complete, and removing either would reduce the competitiveness of some trade exposed businesses.

13. *What, if any, changes to the current exemption arrangements should be made? What would be the impact of those changes on directly affected businesses and the broader community?*

The partial exemption framework is very important to the continued competitiveness of many of Australia's trade exposed industries and should be maintained. There are opportunities to streamline and improve the delivery of the exemption. And, as many of Ai Group's trade exposed members argued, the exemption should be extended to apply to the whole burden of the RET, and not just to volumes and prices above those which would have applied under the original pre-2009 Mandatory Renewable Energy Target for that year.

The original MRET did not include an exemption for emissions intensive trade exposed industries, and this was the Government's justification for not including this component in the exemption framework when the RET was expanded in 2009. However, the competitive environment for much of Australian industry has deteriorated sharply since 2001; business is under pressure from the prolonged strength of the dollar, and what was an acceptable cost a decade ago is now much more difficult for globally exposed large energy users.

As the paper acknowledges, extending or expanding the current exemption arrangements would impact non-exempt energy users, including households, businesses not exposed to international trade, and trade-exposed businesses that do not meet the current thresholds for recognition as energy intensive.

Such a change would be important and beneficial for businesses for whom energy is a major part of their cost structure. It would arguably be less material for those businesses in a position to pass costs through to their customers, and for businesses with a very low energy intensity. A recent Ai Group survey found very uneven levels of energy use across the economy, with energy expenses only accounting for a high share of costs for

around a quarter of businesses. This degree of energy intensity means such businesses will tend to be either emissions intensive trade-exposed, or able to pass costs through to their customers. Nearly three quarters of businesses spend 2 per cent or less of their sales revenue on energy.

In addition, now that the Carbon Pricing Mechanism has been implemented, application processes for EITE assistance under the Jobs and Competitiveness Program and the RET should be harmonised and streamlined so that only one application and one third party audit of production data is required. This would make it easier and cheaper for EITE businesses to obtain their exemptions and may also reduce Government costs of administering the schemes.

There is a possibility to further streamline the application process by reducing the need for EITE businesses to negotiate the value of their PECs with their electricity retailers. This negotiation, which occurs because the PECs are not tradeable certificates and must be surrendered to liable entities, has caused problems for both EITE businesses and retailers. There is an information asymmetry between retailers and customers on the gross costs of the RET. The current approach also makes it more difficult for an EITE business to change energy retailers during a calendar year as they are issued in the current retailer's name for the whole of the year. Solutions might include making PECs more tradeable and fungible, or potentially replacing PECs with issuance of LGCs.

14. *Is a list approach to 'eligible renewable sources' appropriate?*

We believe that a list approach to eligible renewable sources is appropriate, so long as a transparent process exists for evaluating the list should new forms of large-scale renewable energy become available. Past experience has shown that new sources of renewable energy have the potential to greatly reduce the cost of energy retailers' liabilities, so it is important that new sources of renewable energy are able to be evaluated for eligibility as they become available.

15. *Are there additional renewable sources which should be eligible under the REE Act?*

Ai Group is open to other technologies being included in the LRET, so long as the introduction of these technologies is managed in a consultative and transparent manner. The addition of further renewable energy sources is likely to lower the cost of the LRET for energy retailers and electricity users, and is consistent with Ai Group's climate policy principle of least cost abatement.

Obvious candidates include clean energy sources, such as waste-to-energy applications, which have the potential to abate emissions, make better use of abundant and ongoing waste streams, and reduce demand for grid electricity in Australia. For example, some municipal and industrial waste streams, along with wood waste from sustainably managed native forests, could potentially make a strong contribution to renewable energy, and would help to encourage the collection and processing of waste that might otherwise rot *in situ* or be sent to landfill. Any reasonable objections to their inclusion should be able to be addressed, although this may require greater consultation and development than the current review process allows for, including assessment of the implications for the targets and investors. This issue should be also be a priority for future major reviews of the RET.

16. *Should waste coal mine gas be included in the RET? Should new capacity of waste coal mine gas be included in the RET?*

Waste coal mine gas was included as an eligible renewable energy source to provide transitional assistance for waste coal mine gas-based generation projects that would be affected by the introduction of a carbon price and cessation of the NSW Greenhouse Gas Reduction Scheme. This was appropriate in the circumstances, but beyond 2020 – and for additional mine gas generation capacity – the carbon price, electricity prices and other forms of support should provide adequate support for efficient levels of generation.

17. *What would be the costs and benefits of any recommended changes to eligible renewable sources?*

Ai Group has no specific input on the projected impacts of additional generation sources, beyond the expectation of a potential reduction in the price of Large-scale Generation Certificates (LGCs), as has occurred in the past when new sources of renewable energy have been included.

18. *Are the LRET accreditation and registration procedures appropriate and working efficiently?*

Ai Group has no input to make on this question.

Small-scale Renewable Energy Scheme

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

The separation of the LRET and the SRES provided greater certainty for investment in large-scale renewable technologies, uptake of which was threatened in 2009-10 by the confluence of falling costs and additional subsidies that boosted demand for small scale technologies within the former unified market. However, the separation pushed the problem onto the wider community.

The risk (or cost) of having a separate scheme for small-scale technologies is that it can raise overall costs for electricity consumers, as evidenced by the costs passed through by electricity retailers to pay for the massive growth in solar PV installations in 2010 and 2011. This risk is made more pronounced by the fact that the SRES is an 'uncapped' scheme: the annual liability is set on the basis of the expected number of certificates that will be created, and is not based on a pre-set 2020 target (as is the case for the LRET). The certificate multiplier offered for solar PV installations, the generous feed-in tariffs that were available at the State level, and the plunging costs of PV systems themselves all combined to drive extraordinary growth, with the gross cost of SRES to electricity consumers being much higher than expected and, indeed, much higher than that imposed by the LRET. The scaling back of the multiplier and reform of State feed-in-tariffs will help to alleviate this risk and has been an important step as the cost of small-scale technologies has declined and retail energy prices have risen. Further steps are needed to keep the cost of the SRES from spiking again.

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

The cost of some small-scale renewable technologies is often said to be approaching grid parity; the cost of solar PV in particular is dropping rapidly due to innovation and strong global growth in production and installation; meanwhile retail prices for electricity are rising, driven by major network investments, carbon pricing and more. As such, the case for a separate small-scale technology scheme will reduce over time.

The level of support for small-scale technologies needs to be reviewed in light of their increasing competitiveness and the public good that they provide. One important step would be to put in place a clear process and pathway to continue the steady, predictable lowering of the subsidy for small-scale technologies as their costs decline and energy prices rise.

21. *Is the uncapped nature of the SRES appropriate?*

The overall cost of the SRES needs to be contained at acceptable levels, particularly when compared to the highs of 2011 and, to a lesser extent. If the factors affecting SRES in these years had applied to large-scale technologies – rapid cost reductions,

generous additional subsidies – the nature of the LRET design would have seen no spike in costs, since certificate prices would have fallen as supply increased.

SRES costs could be contained by capping the scheme. However, in the context of the market for small-scale systems a cap is likely to cause considerable problems and dislocation. The experience with other capped benefits, such as the former rebates for solar PV or State government grants and tariffs, is that demand spikes when the public believes that time is running out; governments often find it hard to enforce a cap; and neither government nor industry may have a clear picture of total activity or the pipeline for certificates. The risk is that the cap does not hold, and that the cap drives annual boom-and-bust cycles that damage the industry.

Fortunately a cap is not the only option. Ai Group suggests that SRES costs can be controlled in a smoother, fairer manner by winding back ‘additional’ support for these technologies to better reflect their growing competitiveness with non-renewable technology alternatives. This could be achieved in a number of ways, explored in more detail below, including: further reducing the multiplier for small-scale technologies (to below 1) as they become more cost competitive with the grid; reducing the price of transferring certificates through the STC Clearing House; and altering deeming arrangements.

We have given some consideration to each of these approaches and believe that an approach of further winding back multipliers is the best mechanism to use.

Further reducing the multiplier for small scale technologies: The certificate multiplier applied to solar PV dropped to 2 in July 2012, and will reduce to 1 in July 2013. By further reducing the multiplier for small-scale technologies over time to less than 1 it would be possible to ‘discount’ certificates generated by these technologies as they became more cost competitive. Thus, the subsidy for small-scale technologies would be reduced according to their increasing cost competitiveness, stabilising the impact on energy retailer liabilities and hence on energy users.

Under the REE Act the Minister can make regulations that specify lower multipliers than those prescribed, but not higher ones. There appears to be nothing to prevent a multiplier of 1 or less. Multipliers apply only to issuance of certificates for “small generation units”, a category which excludes solar hot water. This is important, as solar hot water has not been subject to the same factors that have accelerated solar PV take-up and any measures to moderate the costs of PV should avoid collateral damage to this technology and the industry that underpins it. Amended multipliers would not affect displacement technologies.

The multiplier provisions mean that the legislation allows for a limited degree of separation between technologies, but there is no capacity to specify different multipliers for different sub-categories of small-scale generation technologies (e.g. between solar PV and micro-wind). Given the dominance of solar PV in the SRES, the discounted multipliers should be calculated on the basis of observed changes in the price of solar PV relative to grid electricity. Other small scale technologies (that is, not including displacement technologies) make a very small contribution to the scheme (see figure below). Moreover, the RET was not designed to promote technology diversity. Other policies exist to promote technology diversity and could be used to support commercialisation of a range of small-scale technologies.

The multiplier approach would require a set of conditions and a formula to be established to determine the extent to which the multiplier needed to be reduced over time to reflect the growing competitiveness of small-scale technologies against non-renewable alternatives. The conditions would need to be easy to understand, observe and evaluate, and provisions may need to be put in place to allow corrections in case the demand for small-scale technologies was significantly higher or lower than anticipated. At the very least, the formula should consider observed changes in the average retail electricity price and changes in the installed cost of solar PV (or potentially any future predominant small-scale renewable technology in Australia). Other parameters, such as growth in the demand for green alternatives (independent of price), could potentially be considered, to the extent that they can be quantified and observed.

The current trajectory of multiplier reductions finishes with a multiplier of 1 on 1 July 2013, with no current plans to make further changes beyond this point. For this reason, it is recommended that further changes to the multiplier apply from 1 July 2014. The REE Act specifies multipliers for the years 2009-10 to 2014-15; lower multipliers can be specified in these years through regulation, but there is no capacity for multipliers after this date. We therefore recommend the amendment of the table in s23B(2) of the REE Act to specify multipliers of 1 for the years 2015-16 to 2019-20. This would provide capacity for lower regulated multipliers, without locking the level of any reduction in to the legislation. The 2016 review of the Act should consider whether further changes are appropriate.

We present the following formula - based on changes in the cost of an installed solar PV unit and average electricity retail prices between the immediate past calendar year and a 2012 base year – as a starting point for designing an approach to determine the appropriate multiplier:

If $A < 1$, then multiplier for financial year $X = A$, if $A \geq 1$, then multiplier for financial year $X = 1$
 Where:

$$A = \left[\frac{\text{Installed cost of solar PV - calendar year } X - 1 (\$/W)}{\text{Installed cost of solar PV - calendar year 2012 } (\$/W)} \times \frac{\text{Avg. retail electricity price - calendar year } X - 1 (\text{c/kWh})}{\text{Avg. retail electricity price - calendar year 2012 } (\text{c/kWh})} \right]$$

Using this formula, multipliers could be determined six months in advance of application based on widely observable data whose trends will be clear even earlier. The formula would be applied for 2014-15 and beyond, once the current trajectory of multiplier reductions is completed. An example of how this would work for the financial years from FY 2014 to FY 2017 is illustrated in the table below. This example makes purely indicative assumptions about changes in the cost of installed solar PV and retail electricity prices over this period; it is not a projection of prices or costs, but an illustration of how the proposed multiplier formula would work.

Using this table we can see that the multiplier for the 2014-15 financial year could be determined in early 2014, based on the installed solar PV costs and electricity retail prices in 2013 relative to those in 2012. Multipliers have already been determined, and would not be further amended, for the years up to 2013-14 inclusive.

<i>Financial year</i>	<i>2012-13</i>	<i>2013-14</i>	<i>2014-15</i>	<i>2015-16</i>	<i>2016-17</i>
Multiplier	2.0	1.0	0.9	0.8	0.7
<i>Calendar year</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>	<i>2015</i>	<i>2016</i>
PV installed cost \$/w	3.5	3.2	3.0	2.7	2.5
Average retail electricity price c/kWh	25.0	26.3	27.6	28.9	30.4

Reducing the price of transferring certificates through the STC Clearing House:

The \$40 certificate clearing price subsidises investment in small scale technologies while, at the same time, acting to cap the price of STCs. By lowering the certificate clearing price as the cost competitiveness of small scale technologies is improved, the maximum liability of energy retailers could be stabilised or reduced. Under Section 30LA of the REE Act the Minister can make regulations that specify a clearing house price of less than \$40 in regulations. However, given the large and unforeseen number of certificates being sold on the secondary market for considerably less than \$40, it is unclear whether this approach would be effective in stabilising SRES costs. Moreover, this approach is indiscriminate and would affect both generation and displacement technologies despite their different circumstances.

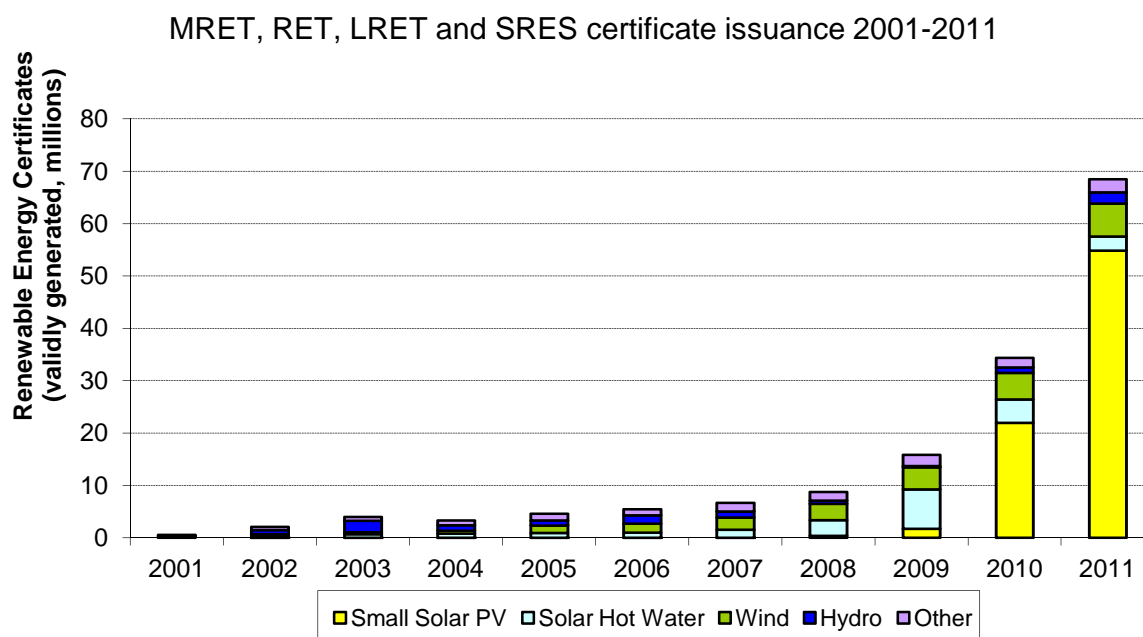
Altering the deeming arrangements: Deeming calculations are used to determine the number of STCs a small-scale technology will create over its lifetime. By reducing the number of certificates a particular technology is 'deemed' to create, it would be possible to reduce the subsidy for different small-scale technologies over time. However, this approach is likely to be administratively complex and would undermine the integrity of the small-scale scheme.

Our recommendation to further reduce future multipliers for PV is a significant change, but if carefully implemented it need not raise the same concerns about investment certainty that arise in relation to the LRET. This is fundamentally because the SRES provides its subsidy upfront at the time of installation, while the LRET provides its subsidy for energy as generated. Thus changes to the LRET impact existing investments, while reductions in future SRES assistance leave existing investors whole. It is nevertheless very important that any new mechanism to control SRES costs be transparent and predictable, to avoid damage to industry.

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

The uncapped nature of the SRES design is less likely to disruptively restrict the amount of investment in small-scale renewable technologies that occurs within any one year. However, it makes it difficult for energy retailers to predict and plan for their liabilities from year-to-year and creates a risk of much higher impacts than anticipated, particularly when credits and State feed-in-tariffs act to greatly increase the demand for small-scale technologies. As discussed above, the predictability of the current uncapped scheme could be improved and costs could be controlled by a defined process to wind back additional support for these technologies and let market factors, instead, drive their take-up.

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



As the chart above, derived from certificate registry data, illustrates, demand for small-scale renewable energy technologies has greatly increased over the decade to 2011, and certificate issuance for solar PV is now far bigger than for large scale technologies such as wind. The picture is very different in terms of the actual energy generated by small- and large-scale technologies, since certificates are deemed upfront under SRES and a multiplier has been applied to PV.

24. What is the appropriate process for considering and admitting new technologies to the SRES?

It is vital that a transparent process is developed for considering and admitting new technologies to the SRES. However, Ai Group agrees with findings of the COAG *Review of Specific RET Issues* report, that it would not be advisable to extend eligibility to any new technologies, until an appropriate process is put in place to prevent future spikes in small-scale technology investment and hence, energy retailer liabilities under the SRES. We disagree with COAG that an appropriate process would be to cap targets for the scheme; as discussed above, other approaches to cost control are to be preferred to a cap.

Once an appropriate process has been put in place to prevent unsustainable spikes in small scale technology investment, it would be appropriate to extend eligibility to new technologies so long as industry and other stakeholders are adequately consulted on, and are broadly in agreement with, any proposed extensions.

25. *Should any additional small-scale technologies be eligible to generate small-scale technology certificates?*

Yes, provided the conditions stipulated in Question 24 have been met.

26. *Is it appropriate to include displacement technologies in the SRES?*

Although displacement technologies do not generate electricity they do reduce the demand for electricity (still mostly generated from fossil fuels) and for natural gas, thereby helping to increase the percentage of Australia's energy that comes from renewable sources. For this reason we feel that the displacement technologies that are currently eligible for STCs should remain eligible. However, for the reasons outlined in our response to Question 24, we would be reluctant to see any new small-scale technologies, including displacement technologies, be considered for inclusion as part of the SRES at this time.

27. *Should additional eligible technologies under the SRES be limited to generation technologies?*

The uptake of displacement technologies is important, since these technologies do displace electricity that would have otherwise been consumed, with potential benefits for emissions, network investment and wholesale electricity prices. A range of policies could potentially be used to encourage the uptake of these technologies, including the RET, energy efficiency policies, improved rules for the National Electricity Market and more. Careful evaluation is needed to determine the most appropriate policy tool for this purpose, which may differ between individual displacement technologies. We are not opposed to displacement technologies being included as eligible technologies under the SRES, provided they do not increase the overall cost of the scheme.

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

Ai Group believes that deeming is the most appropriate way of providing certificates to SRES participants. Recent Ai Group research found that many businesses, and especially small businesses, would only invest in energy projects where the payback period was less than 3 years, and that a lack of access to capital is likely to act as a barrier to investment in small scale technologies for these businesses. The upfront provision of STCs helps to overcome this barrier.

In the absence of a national smart grid roll out, determining the annual generation of individual small businesses and households would likely be costly and burdensome.

29. *Are the deeming calculations for different small-scale technology systems reasonable?*

Ai Group has no input to make on this question.

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

As illustrated in the chart above, multipliers have been extremely effective in increasing the uptake of solar PV by businesses and households. However, the resulting spikes in investment imposed unsustainably increasing costs on electricity users over the past three years. The multiplier was introduced to bridge the gap left by the phase-out of the old \$8000 PV rebate, which had been taken up much faster than expected in 2008-09. The multiplier phase-down has been accelerated twice in light of the extreme growth in installations, and will soon reach 1. Any future multipliers for these technologies need to more accurately reflect the cost competitiveness of small scale technologies with their fossil fuel counterparts. As argued above, multipliers of less than one should be considered to 'discount' certificates generated by a small-scale technology, where necessary to avoid spikes in the cost of the SRES.

31. *Is the Small-scale Technology Certificate Clearing House an effective and efficient mechanism to support the operation of the SRES?*

Ai Group has no input to make on this question.

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

Ai Group has no input to make on this question.

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

Support for any technology needs to accurately reflect its cost competitiveness in the market or there is a risk that its uptake and, ultimately, the price of electricity will be inflated. As described in our response to Question 21, there are a number of

mechanisms that can be used to alter the preference for certain technologies, including altering multipliers, price or quantity caps and deeming. Reducing the \$40 price cap is one option, but for the reasons discussed above (including its indiscriminate effects) it is not preferred.

Ai Group instead proposes an approach of slowly winding back multipliers to reflect changes in the retail electricity price and cost of these technologies (please refer to our response to Question 21). We recommend that the CCA investigate the most appropriate mechanisms to use, and that findings of these investigations are reported in the discussion paper.

34. *Are the SRES administration arrangements appropriate and working efficiently?*

Ai Group has no input to make on this question.

Diversity of renewable energy access

35. *Should the RET design be changed to promote greater diversity, or do you think that, to the extent that there are barriers to the uptake of other types of renewable energy, these are more cost-effectively addressed through other means?*

Past experience has demonstrated that the use of multipliers, or other forms of distortion to encourage investment in certain technologies, can greatly increase the gross cost of the RET scheme. For this reason, Ai Group believes it is important that the RET design remain technology neutral as much as possible, particularly in the large-scale space. Other policies can more cost-effectively ensure that there is an appropriate level of diversity in Australia's renewable energy generation. This will minimise costs of the scheme – something that is extremely important to trade-exposed industries.

The commercial viability of many renewable energy technologies will increase over time with the benefit of new innovations, wider adoption, deeper experience and increasing retail energy prices. In the meantime, ARENA and the CEFC are the most appropriate bodies to finance early stage research and development and the commercialisation of novel and diverse renewables technologies.

36. *What would be the costs and benefits of driving more diversity through changes to the RET design?*

The cost of the RET would almost certainly be increased if the scheme design was amended to promote greater diversity of renewable energy access. The current design of the LRET provides incentives to roll out the cheapest, best developed renewables

technologies, and thus is currently expected to primarily support onshore wind energy. Alternative policies could more cost-effectively achieve the goal of diversity, and Ai Group would be strongly opposed to the scheme design being amended for this purpose.

If there is a desire to increase the diversity of renewable energy sources in Australia, the CCA may like to consider the approach recently proposed by the Grattan Institute.⁵ With extensive development and consultation, such an approach could potentially be funded by the CEFC.

Review frequency

37. *What is the appropriate frequency for reviews of the RET?*

Meeting the RET at least cost is dependent on the provision of a stable investment environment. Investments in renewable energy that face greater uncertainty will either not proceed, potentially leading to shortfall charges, or proceed with higher financing costs, ultimately recovered from electricity consumers. A fundamental re-consideration of the policy and legislation every two years is a recipe for uncertainty.

However, we recognise that changing energy forecasts and other policy decisions will impact key elements of the RET and the ability of liable entities to meet their obligations. Furthermore, decisions have to be made about the future of the RET post 2030, and these decisions need to be made in a timely fashion to ensure that they do not adversely impact long-term investment in renewable energy generation. While the REE Act requires biennial review, there is interpretive scope for flexible reviews. Accordingly, we recommend that as a matter of policy ‘status check’ reviews are conducted every two years (starting with the 2014 review, and that deeper reviews of the RET policy are conducted no more frequently than once every four years.

38. *What should future reviews focus on?*

As described above, Ai Group recommends biennial ‘status checks’ of the RET scheme. The purpose of these checks would be simply to monitor how the scheme is performing and to note the implications of changes in the broader policy environment to the RET scheme, including policies at the State and local government levels as far as practical. These status checks would not be expected to result in recommendations regarding amendments to the legislation underpinning the RET scheme, barring extreme circumstances.

⁵ Tony Wood and Daniel Mullerworth, [Building the bridge: a practical plan for a low-cost, low-emissions energy future](#) (July 2012).

In contrast, the more fundamental quadrennial reviews of the RET scheme would consider the scheme's targets, coverage and administration and may result in the policy, and accompanying legislation, being amended. We suggest that the latter focus on the:

- need for any LRET target beyond 2030;
- appropriate level of subsidy (taking account of price caps, multipliers, other forms of support at all levels of government and the market competitiveness of the technologies) for small-scale technologies and how this will be calculated;
- appropriateness of the list of eligible renewable energy sources for both the LRET and SRES;
- level of exemptions to be provided to EITE industries;
- improvements that can be made to the scheme's administration; and
- interactions with other policies that enhance or reduce the uptake of renewable generation.

In assessing each of the factors above, it will be important to consider fully the economic implications of any proposed policy changes for trade exposed industries, the energy sector, the renewables industry, households and the macro-economy. It is equally important that industry is consulted on any proposed amendments and is engaged in the design, development and evaluation of new policy positions.