

RESPONSE TO THE CLIMATE CHANGE AUTHORITY ISSUES PAPER - RENEWABLE ENERGY TARGET (RET) REVIEW

Continental Wind Partners (CWP) and Wind Prospect welcome the opportunity to comment on the issues paper released by the Climate Change Authority.

CWP and Wind Prospect work together in joint venture in Australia developing wind farms. Between us we have been successful in developing about 25% of the overall amount of wind energy in Australia over the past 10 years and we are currently developing a portfolio of over 2GW of wind energy primarily in New South Wales. The two companies are both independently active in overseas markets, primarily Europe. We have successfully developed and built over 100 wind farms internationally. These successes include the development and construction of Europe's largest wind farm, the 600MW Fantanele Wind farm. This project alone generated over €1.3 billion of investment.

In Australia we have worked with partners on the financing and construction of wind farms. Successes in Australia include;

Wind Farm	State	Capacity MW	Status
Boco Rock	NSW	260	Approved, awaiting construction
Bango	NSW	250	Development
Crudine Ridge	NSW	165	Development
Golspie	NSW	250	Development
Sapphire	NSW	318	Development
Uungula	NSW	800	Development
Troubridge Point	SA	30	Approved
Green Point	SA	54	Approved
Willogoleche Hill	SA	78	Approved, awaiting construction
Hallett Wind Farm	SA	94.5	Operating
Snowtown (Stage 1)	SA	100.8	Operating
Canunda Wind Farm	SA	46	Operating
Mount Millar Wind Farm	SA	70	Operating
Hallett II (Hallett Hill)	SA	71.4	Operating
Hallett IV (North Brown Hill)	SA	132.3	Operating
Hallett V (The Bluff Range)	SA	52.5	Operating
Snowtown (Stage 2)	SA	270	Under construction
Dandaragan	WA	514	Approved
Totals		3556.5	

In NSW we are due to commence construction of the Boco Rock wind farm Stage 1. This 107 MW wind farm will generate AU\$350 million of investment and represents a high quality development with a long term power purchase agreement. This power purchase agreement underpins the financing of the project and has come about through the LRET obligations on energy retailers, in this case TRUenergy.

Overseas, our projects have been supported by either feed-in tariffs or green certificate schemes such as the RET in Australia. There is no doubt that a feed-in tariff scheme is generally easier to finance and generates investment into renewable generation at a faster rate, however a Green Certificate Scheme works perfectly well too, and is arguably more economically efficient. However for a certificate scheme to work it is essential it has a stable regulatory environment.

Australia introduced the Green Certificate Scheme (REC) to the world but its own track record has been marred by changes and uncertainty. Seemingly small flaws in the scheme have delayed investment for many years. The RET has experienced this with the miscalculated impact of overly subsidised roof top solar¹.

Regardless of the setbacks to date the RET has successfully introduced over 2GW of renewable energy generation into Australia and has the potential to take renewable energy penetration all the way up to its target of 41,000GWhrs pa by 2020. We now sit at the turning point of whether the RET regime will achieve this or not.

We applaud the bipartisan support from Australia's two major political parties that this scheme has had since its outset. The two major parties have disagreed on many elements of climate change action and energy policy however throughout its lifetime, the RET and now the LGC scheme has always had full bipartisan support.

In this paper we will address many of the issues raised in the issues paper by the Climate Change Authority, however our general message is simple. The scheme works, it has bipartisan political support and right now certainty is needed to ensure that it will deliver the outcomes it was designed to achieve. There are vested interests, we realise, pushing in other directions and advocating changes to the scheme. We ourselves could propose changes however the overriding principle here should be the old adage, "If it isn't broken, don't mess with it".

Any potential positive impact from tinkering with the scheme could very likely result in far greater negative consequences.

¹ It is important to note that small scale rooftop PV is funded in an entirely different way to large scale projects. Large projects require significant funding which must be amortised over a long period – 15 to 20 years. This fundamental difference was never accounted for when rooftop PV was introduced into the REC. Nor were the large subsidies provided by State-based feed-in tariffs.

1. Why is Certainty Required?

The bulk of the large scale projects in Australia will be project financed. Banks and equity investors need secure cash flow to underpin project financing. This comes only through a secure long term off-take agreement – a power purchase agreement (PPA). The off-taker, generally an energy retailer, will have risks from exposure to fluctuating LGC markets and fluctuating electricity prices. These risks can largely be managed. The generator can similarly manage resource risk as well as a myriad of other project related risks. The one risk neither party can manage or absorb is regulatory risk linked to uncertainty surrounding reviews and potential changes to targets or the way the LGC scheme is implemented. If there is uncertainty in the future level of LGC liabilities then long term PPAs will not be signed. Without long term PPA's, finance will simply not come to fund the renewable generation required to meet Australia's targets.

2. Why a Percentage Target will not Work.

Existing legislation has fixed targets in terms of gigawatt-hours per annum that are required to be met by energy retailers to satisfy their liability under the LGC scheme. These fixed targets create the certainty required which will enable PPAs to be signed and finance to be liberated. A target derived from a percentage linked to projected electricity demand is uncertain. Projected electricity demands are estimates. Estimates are notoriously wrong and at best need to be updated regularly. They represent a moving target.

The current estimated trajectory, although being prepared by professionals from AEMO, can vary substantially with a slightly different view of model inputs including;

- PV pricing and penetration,
- oil and gas prices,
- foreign exchange and macro economic forecasts

We support the conclusion of the Tambling Review which found:

“By their nature, projections of electricity demand contain a degree of uncertainty. The changes in projected electricity demand that have occurred since the MRET was announced demonstrate that a percentage-based target would require the corresponding generation level to be regularly revised. This would adversely impact on market certainty. Risk is a key factor in investment decision making, so that any changes to the MRET that would reduce market certainty would also reduce the prospect of attracting the required financial backing for projects. The Review Panel considers that a fixed target is more compatible with market certainty, with MRET's industry development objective, which defines a level of renewable energy

generation rather than a percentage of a fluctuating electricity market over which the industry has no control”.²

Others will argue that the fixed target of 41,000 GWhrs pa should be changed to a floating target which is a percentage of the AEMO projection. This would represent a significant shift in policy that will have both direct and indirect impact on the financing of renewable energy projects.

3. Specific Consequences of a Change in the LRET Target

Any reduction to the 41,000GW hour target in 2020 or the trajectory towards that target will have severe consequences stemming from uncertainty about future LGC revenue:

- liable parties ie energy retailers will be significantly less likely to enter into any long term PPA's.
- The satisfactory operation of the evolving LGC futures will be further delayed. These futures trades are helping off-takers and generators hedge their position on future LGC prices.
- Any projects that are currently in financing, particularly those based around merchant price projections, are likely to falter. There are large uncertainties in future price projections linked to uncertainties in electricity demand, gas prices (renewable energy is a price follower when it comes to electricity prices) and carbon pricing.

It is important to note experience from elsewhere in the developed world where the response has been to increase the % target if a projection moves. For example, in California, where its 2020 20% target looked like being exceeded, that target was instead increased to 33% by 2020.

In Australia the headline number of 20% has been used as a message to public as it's easier to understand than a figure like 45GWhours per annum. As we go forward, the percentage should continue to be used to indicate the outcome of the legislation rather than as a prime driver in the legislation itself. The prime mover needs to be a fixed target of 41,000 GWhrs pa, a target that sends an unambiguous message that the LRET is fixed and will remain so. This unambiguous message will send a clear signal to investors that the sector must meet its target. The investment community will quickly respond with its cheque book.

4. Political Support for the LRET

It is worth noting that there is bipartisan support for the LRET and furthermore there is little or no bipartisan support for any other renewable energy initiative implemented

² MRET Review Panel, "Renewable Opportunities: A Review in the Operation of the Renewable Energy (Electricity) Act 2000", September 2003, pages 119-120

by the government. Arguably the LRET is the only politically robust initiative to achieve the level of CO₂ reduction supported by both major parties and pledged by Australia to the world.³

The LRET has been and should continue to be the prime driver of renewable energy investment in Australia. It supports the lowest cost renewable energy generation, far lower than other schemes that have been introduced, including solar tariffs and direct action grants such as solar flagships. According to the Australian Energy Market Commission in their report of December 2011, the cost of the LRET to the average residential electricity price is only 2.3-3.4% of the overall bill.

Economic efficiency is essential to a politically robust scheme. Uncertainty in a scheme breeds inefficiency.

Further uncertainty attached to the RET will compound the uncertainty surrounding the future of the carbon price and its impact on energy prices. This coupled with the cessation of the Australian Government's Contracts for Closure program makes the shift from baseload coal to baseload gas generation less likely. That may mean Australia's medium-term energy mix is more likely to lock in coal longer with renewables, reducing the opportunities for gas beyond peaking plants. If Australia is to reduce carbon load, it will need more renewables than if gas played more of a role as a transitional fuel than expected. The failure to switch from coal should be the subject of further investigation.

Nothing about the science of climate change, or the emissions intensity of the Australian stationary energy sector, suggests that now is a time to reduce Australia's adoption rate of renewable energy, as measured in GWh. To do so would send a perverse message to investors.

The future effectiveness of the LRET depends now on the signal that the committee sends to the sector and in particular whether that message successfully shouts consistency and clarity. The simplest message is "no change".

5. Why the LGC scheme is most efficient regardless of a carbon price.

Most PPA's are structured around a bundled LGC and electricity price. This bundled price reflects the cost of production of renewable energy. If electricity prices go up in the future, the LGC prices will drop accordingly. With electricity prices difficult to project in today's market, LGCs present a hedge to whoever is taking the merchant risk, whether it be a generator taking the merchant risk or the off-taker. In this way, the LGC scheme drives the most economical renewable energy into the generation mix.

³ The bipartisan national greenhouse gas (GHG) reduction target of 5% over 2000 levels by 2020.

When electricity prices are increased, it does not increase the price of renewable energy. Renewable energy is an electricity price follower not a price setter. The electricity price will be followed and the LGC price respectively will be suppressed. The suppression of the LGC price will keep the bundled price at the market level, where the market level is the price of the next MWhr of renewable energy generation. So arguments along the lines of “We now have a carbon tax, therefore we don’t need an LGC” are completely misleading.

Yes, the carbon price will increase the price of electricity but the LGC price will then be suppressed so the bundled price will remain at the same market level. The bundled price is kept from rising through competition. Independent generators compete for Power Purchase Agreements. Offtakers will always demand the lowest bundled price as it is their business to get the lowest prices to their customers whilst maintaining a respectable profit.

We are experiencing this now in the market. The PPA that we have recently won for Boco Rock was done on a competitive basis. Similarly we are competing for a PPA with others at present. The lowest bundled price of a deliverable project will win every time. In this way, the LGC scheme is economically perfect. It does not need to differentiate between solar, wind, wave, etc and it can remain entirely efficient getting lowest price renewable energy regardless of what the electricity price or carbon price is doing.

6. The Cap – Should the short fall charge be raised?

The short fall charge will not increase the bundled price for LGCs and electricity of renewable energy for the reasons given above. The bundled price is set not by the short fall charge but through competition which drives the lowest bundled price every time. The LGC short fall charge therefore is counterproductive in that it simply acts as a road block to further renewable energy if the bundled pricing reaches short fall charge levels. If the bundled pricing reaches short fall charge level, i.e. when the cost per megawatt hour to produce the next megawatt hour of renewable energy generation drives an LGC price which is higher than the \$65 swap price (including allowance for tax), then retailers with the liabilities to surrender LGCs will go for the short fall charge instead. At that stage the LGC ceases to function and the LRET target becomes meaningless.

We acknowledge that providing there are no further amendments made to the LGC scheme and the trajectory is fixed, we believe that the targets can be met without any further manipulation required of the short fall charge. This position should be reviewed in 2 years particularly in the light of carbon pricing at that time.

The key to the ongoing success of the RET is to keep the LGC price contained within the short fall charge and the one way of doing that is to avoid further disruption to the LGC scheme and inject a level of confidence and stability so that investors can invest long term in the sector. If there are further delays to investment caused by amending the current LGC scheme this will not be possible.

7. Delays to investment into Australia's renewable energy sector will create higher costs to consumers and will delay carbon abatement

There are a number of reasons why delays will create higher costs:

1. Foreign exchange – the current Australian dollar is at an all time high and has tremendous buying power overseas where wind turbines are produced in the US, China and Europe. It is unlikely we will ever get more bang for our buck than now. Longer term forecasts for foreign exchange tend to dictate a dropping in the strength of the dollar which will create more expensive infrastructure since particularly in wind and solar much of the equipment is coming from overseas.
2. Demand in overseas markets – one of the largest markets, the US, is currently debating the extension of the production tax credit, the PTC. At this stage it looks like this will not be extended and turbine sales in the US which have been at all time highs over the last few years will drop dramatically. As demand drops, so will price, Once again, Australia will be well positioned over the next three years to buy turbines at lower prices.
3. Amortisation periods – at present, the LGC is going until 2030 and then stops. This gives 15 years of amortisation to a project which starts generating in 2015. The lead time involved between negotiating a PPA, securing finance and building a wind farm is approximately 2.5 years. The PPA which we secured for Boco Rock was done at the end of last year and signed earlier this year. It has taken us 6 months to secure the financing necessary (\$350 million) to get the project moving. We expect financial close in October this year.

In order to get LGCs generating in early 2016, we need to be signing Power Purchase Agreements in the next 12 months. The LGC review in itself is injecting uncertainty into the market and we have noticed a drop off in PPA negotiation activity over the last six months. There is no time left to delay any further.

4. Although Australia has a large pipeline of large scale renewable energy projects, particularly wind, it is important to note that most planning permits have a lifespan of around 3 years. Many approved projects will be caught by planning deadlines in the next 12 months. Further delays in investment will not stall projects like these for short periods, they will terminate the projects. At best a new planning permit can take 3 – 5 years to secure. We believe there is an oversupply of projects in Australia (refer below) however, if projects are terminated it is very likely that they will be the projects that will deliver lower cost energy. This is because the best projects are always developed first and are therefore more likely to have a short amount of time left on their development permit. So delays will lead to higher cost renewable energy due to permit expirations.

8. Does it help to extend the RET beyond 2030?

If the deadline of 2030 is extended, let's say to 2035, this will not help. The most likely effect will be to delay the signing of PPAs and therefore delay investment in the sector. The likelihood of this occurring is exacerbated by the uncertainty surrounding the carbon tax – energy retailers and investors will hold off until there is an election and thereafter, assuming the coalition win government there will be a drawn out period of uncertainty related to the repealing of the carbon tax which will be a slow process considering the likely position of the senate.

Furthermore, any delays will simply give benefit to those retailers that have not covered their long term LGC obligations under the existing legislation which is surely not equitable to those retailers that have secured long term LGC purchase contracts or investors that have committed funds based on the current legislated target and the cost projections that stem from that target trajectory. The issue of having an equitable solution which is fair to those that have invested to date is extremely serious.

9. Are there enough projects to satisfy the current LGC trajectory?

Currently the lowest cost of renewable energy generation by a considerable margin is on-shore wind. According to AEMO's Statement of Opportunities (2012) there are currently over 13GW of identified wind projects in advanced stages of development. This large supply pipeline has come about due to the early start of the RET but the solar rooftop bubble and uncertainty has resulted in the delayed delivery of operating wind farms. In the meantime however, this pipeline of onshore wind projects has been moving along the planning and design phases. Australia is now in a unique and enviable situation where it has a ready supply pipeline more than enough to satisfy the targets.

It's interesting to note that the 13GW is arguably too much, as when one calculates the requirement for the target, it is easy to land on a number around 8GW. The remaining 5GW will not get up and running, certainly under this current LGC regime. By having an oversupply it creates more competitive tension in the market which can only lead to lower prices. If demand was higher than supply, then higher prices would result, however with this very high level of supply of potential projects, competition for PPAs will continue all the way through to the end of the LGC and the satisfaction of the 41GWhr energy target. This competition means lowest possible pricing will prevail.

Our pipeline alone has over 3000MW of potential, however we realise that in this competitive environment we will only be able to build generation that delivers the lowest cost per megawatt hour. This efficiency will flow through the PPAs to customer bills.

There has been a lot of talk about the new planning guidelines in Victoria and New South Wales. These guidelines redistribute where generation will come from to some degree. A 2km setback effectively pushes wind farm construction away from the windy ridges close to houses. Australia is a large place. There's a lot of wind in

many areas, and the industry will adapt to these guidelines and will still deliver low cost renewable energy. The new planning guidelines will not curtail the volume of renewable energy. We have a large portfolio ourselves and are not building within the 2km setbacks without land owner approval and we can certainly find 3GW within our portfolio that can deliver low cost renewable energy.

Question

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?

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?

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

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

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?

Response – The existing 41,000 GWh target and its associated trajectory is appropriate and should remain. The target should remain as a fixed Gigawatt target. This target can be met by Australia's current renewable energy pipeline of projects with sufficient oversupply of projects to ensure economic efficiency created by a high level of competition.

Question

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?

Response – The LRET target should be increased for CEFC funded activities. The design of this increase requires knowledge of how the CEFC will operate and how finance will flow into projects. As this is not apparent at the moment it is not possible to opine. From an equity standpoint it is unacceptable for the CEFC supported projects to displace projects not supported by the CEFC.

Questions

*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?*

*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?*

Response – The calculation methodology is fine and should not be changed. The short fall charge should ideally remain flat in real terms . ie the shortfall charge needs to be indexed. In any event the level of the shortfall charge needs to be reviewed if the carbon tax is repealed.

Questions

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?

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

Response – the RET design should not favour any form of large scale renewable energy. Any form of favouritism through multiple RECs per MWh for example can only distort the scheme and lead to economic inefficiency.

Question

*What is the appropriate frequency for reviews of the RET?
What should future reviews focus on?*

Response –reviews should only take place if a milestone is reached. For example , the short fall charge is reached. Future reviews should only focus on the shortfall charge and the extension of the scheme beyond 2030. Both of these issues need to be monitored in response to how carbon is priced in Australia. If the carbon legislation is repealed then the REC shortfall charge may need to be increased. Without a carbon price there will be an increased dependence on the REC to bridge the difference in generation cost to coal in particular. In the absence of a price on carbon it is highly

likely the current shortfall charge will be met in the next few years which will mean the scheme will then fail unless the shortfall charge is increased.