

# Renewable Energy Target Review



Goldwind Australia's submission to the  
Climate Change Authority

14<sup>th</sup> September 2012



## **GOLDWIND AUSTRALIA SUBMISSION ON RENEWABLE ENERGY TARGET REVIEW**

Goldwind Australia welcomes the opportunity to contribute to the Climate Change Authority's RET Review process. Goldwind appreciates the strong multi-party support for the RET scheme through the initial legislation in 2001 and the legislation of the extended target in 2009.

The Australian LRET market can now be observed to be working. Power Purchase Agreements (PPAs) have recently been signed for several renewable energy projects on the basis of compliance obligations under the LRET. The success of investment in the renewable energy market depends on stable market structures. Conversely, structural changes that affect the renewable energy market erode investor confidence. Goldwind advocates that a period of regulatory stability is required so that the momentum that is again building in the industry can be harnessed to achieve the legislated renewable energy target.

This submission provides:

- a brief introduction to Goldwind's recent experience in the Australian Renewable Energy Market; and
- responses to a selection of the questions asked in the RET Review issues paper.

Goldwind looks forward to providing further input to this review once the Climate Change Authority Discussion Paper is released in October 2012.

Yours Sincerely

Mr John Titchen  
Managing Director  
Goldwind Australia Pty Ltd

14th September 2012



## 1 INTRODUCTION

**LRET Is Now Operating As Intended** - Goldwind entered the Australian renewable energy market in 2009 in order to contribute to the economically efficient achievement of the Australian Renewable Energy Target. The multi-party commitment to the RET provides confidence in the market and has provided a strong context for our investments.

Goldwind Australia's parent Xinjiang Goldwind Science and Technology Co. Ltd (Goldwind) is the world's second largest wind turbine manufacturer based on 2011 sales, and is the leading supplier of advanced technology Permanent Magnet Direct Drive (PMDD) wind turbines. Goldwind's wind turbine technology was developed with our German technology partner Vensys.

Based on Goldwind's recent project experience in Australia and our observation of other Australian renewable energy market activities it is clear that the LRET is now functioning as intended with projects being committed based on the demand for LRECs and the resultant contracting of long term Power Purchase Agreements (PPAs).

**A Period Of Regulatory Stability Is Now Required** - Goldwind has observed that in 2009 the Australian Government recognised the problems associated with the REC multiplier and implemented legislative change in 2010 through the *Renewable Energy (Electricity) Amendment Bill 2010* with the support of the major political parties.

These changes included splitting the target into the Large Renewable Energy Target and the Small Renewable Energy Scheme in order to address the unintended consequences that arose from the REC multiplier arrangements. These legislative amendments have been crucial to re-establishing the effectiveness of the RET but it has taken some time for the REC surplus to diminish. A period of regulatory stability is now needed during which market forces can operate without regulatory intervention.

**Mortons Lane Wind Farm – An LRET Based Investment** - Goldwind Australia recently installed thirteen 1.5MW (19.5 MW) advanced technology wind turbines at Mortons Lane Wind Farm in Western Victoria. Mortons Lane represents the first time Permanent Magnet Direct Drive wind turbine technology has been used in a MW scale wind farm in Australia. The commercial viability of this project was secured when a Power Purchase Agreement (PPA) was contracted for the project. The PPA was available due to the demand for LRECs that result from the Australian Government's Renewable Energy Target. Goldwind acquired the development stage project from Newen in 2010 and continued to invest in the project through construction. The wind farm was recently acquired from Goldwind by CGN Wind Energy.

The Mortons Lane project included more than 50% locally sourced content, involves approximately 120 people across the design, construction and operation phases. The project relied on the following local business contributions:

- Consolidated Power Projects (Aust) Pty Ltd undertook the Balance of Plant and Principal Contractors role with 25 to 30 local construction workers for the project with 52,000 employee hours at site;
- Keppel Prince Engineering Pty Ltd supplied 13 x 70m wind turbine towers from their local factory;
- Powercor Australia constructed the 66kV grid connection assets;
- Noske Logistics provided local logistics services; and
- Senergy Australia Pty Ltd provided grid connection services and a number of engineering consultants provided support for the project.



In one year of operation, Mortons Lane Wind Farm will offset up to 21,000 tCO<sub>2</sub>, it will then go on to produce clean energy for the next 20 years, helping Victoria and Australia meet its energy demands by utilising renewable sources.

**Gullen Range Wind Farm Construction Is Committed Based On LRET** - In 2011 Goldwind acquired the Gullen Range Wind Farm development project which is located in NSW from Epuron. Gullen Range Wind Farm is now designed as a 165.5MW wind farm and will utilise a combination of 1.5 MW and 2.5 MW PMDD wind turbines.

Goldwind has now committed construction of Gullen Range Wind Farm to commence in September/October 2012. The project has secured a PPA, a connection agreement and a principle construction contractor. Receipt of a PPA for this large project is a clear sign that the LRET is functioning as intended.

**Australian Requirements** - A key focus for Goldwind with these projects has been to complete localisation of the wind turbine technology including Australian Standards compliance and securing grid connections in the National Electricity Market.

## 2 RESPONSE TO RET REVIEW ISSUES PAPER QUESTIONS

Goldwind has prepared the following responses to a selection of the questions raised in the RET Review Issues Paper.

### 2.1 Large-Scale Renewable Energy Target

***RET Review 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?***

Goldwind has assessed that the 41,000GWh target and the interim targets are appropriate. Goldwind proposes that the LRET should be retained in its current form without any structural changes.

Regulatory stability underpins confidence for renewable energy investors. Goldwind is concerned that changes to the 2020 and interim targets will undermine investor confidence and stall investment. There has been significant investment already into the Australian renewable energy market and there is a pipeline of developments ready to contribute to reaching the target. This will likely be jeopardised if changes are made to the scheme.

Goldwind appreciates Minister Combet's acknowledgement of the Australian Government's role in providing investment certainty and predictability for investors for long lived assets and the need to deliver renewable energy outcomes at least cost to electricity consumers<sup>1</sup>.

Goldwind believe the costs of the LRET are small when compared with its benefits in terms of greenhouse gas reduction and industry development. The Australian Energy Market Commission estimated that the LRET and SRES were likely to only constitute around 1.8 per cent and 0.5 per cent respectively of national retail electricity prices in 2013-14<sup>2</sup>.

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<sup>1</sup> Minister Combet. (2012, August). *Letter to Mr Bernie Fraser*. Retrieved August 22, 2012, from Australian Climate Change Authority: <http://climatechangeauthority.gov.au/sites/climatechangeauthority.gov.au/files/Letter-from-Minister-Combet-to-Mr-Fraser-20120713.pdf>

<sup>2</sup> Climate Change Authority. (2012, August 20). *Renewable Energy Target*. Retrieved August 21, 2012, from Climate Change Authority: <http://climatechangeauthority.gov.au/ret>

***RET Review Question - 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?***

Goldwind observes that the target trajectory is driving sufficient investment in renewable energy capacity to achieve the 2020 target.

The Clean Energy Council's RET review submission states that the RET has resulted in 13,700 GWhs of large-scale renewable energy generation with a total investment of around \$18.5 billion since the RET's inception in 2001. Moreover, there is another \$3.7 billion of projects under construction and a pipeline of projects that include some 15,000 MW of wind farms already approved or proposed through Australia. The CEC have pointed out that this is more than enough capacity to meet the LRET targets<sup>3</sup>.

***RET Review Question - Has the LRET driven investment in skills that will assist Australia in the future?***

The LRET has driven investment in skills that will assist Australia in future. For example in the wind power sector, substantial capability and capacity development has been driven by the renewable energy target. Many Australian businesses have invested in developing the capability and capacity required to meet the renewable energy target.

As an example Goldwind's developments have involved significant local and regional capacity building in terms of increased skills and knowledge for personnel working on these projects.

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<sup>3</sup> Clean Energy Council. (2012, September). *CEC response to RET Issues paper*. Retrieved September 12, 2012, from Clean Energy Council: <http://www.cleanenergycouncil.org.au/policyadvocacy/Submissions/current.html>



- Powercor Australia constructed the 66kV grid connection assets;
- Noske Logistics provided local logistics services; and
- Senergy Australia Pty Ltd provided grid connection services and a number of engineering consultants provided support for the project.

This contributes directly to building Australia's renewable energy workforce capabilities. Continuity in commercial programs such as the Renewable Energy Target is critical and can be complemented through engagement with research institutions where possible.

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

Goldwind proposes that the RET targets should continue to rise beyond 2020. A continued rise in the target post 2020 would provide a stable basis for growth of the renewable energy industry as the 2020 target date is approached and beyond.

The LRET is complementary to other Australian Government climate and renewable energy measures. A key consideration is the interaction between the LREC market and the carbon market. An extension to the growth of the renewable energy target post 2020 provides a longer period during which the transition from the renewable energy target to a carbon price based approach can occur.

The task that is undertaken by the renewable energy target lessens the level of carbon price that is required to achieve a given carbon reduction objective. This can be expected to lessen the impact of constraining carbon emissions on power prices.

The Australian Government and the renewable energy industry would benefit from having both the renewable energy target and a carbon price mechanisms available post 2020. The LRET is a proven and well established mechanism.

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

Goldwind proposes that the target should remain a fixed gigawatt hour target.

The 2003 Tambling review of the Mandatory Renewable Energy Target noted that the use of a fixed GWh target helps deal with the uncertainty associated with a percentage target based on a fluctuating electricity demand forecast. If a percentage target was implemented, it would need constant updating as demand forecasts were updated. This in turn would adversely impact on

market predictability and make achievement of the target harder. The Tambling review considered that a fixed target would be more compatible with market predictability, with MRET's industry development objective, which defines a level of renewable electricity generation rather than a percentage of a fluctuating electricity market over which the industry has no control<sup>4</sup>. Goldwind believes the above findings of the Tambling review are still relevant to this review.

***RET Review Question - 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?***

Goldwind proposes that the targets should not be changed except to increase the target in any given year (particularly post 2020) and extend the duration of the scheme beyond 2030.

Electricity demand forecasts will always vary as they are dependent on many interlinked variables such as the state of the economy, energy market reforms, new technologies, and demand reduction strategies. Moving targets on an annual basis will reduce predictability for investors and lessen confidence in making long term investments. Continual moving of the goal posts through annual target revisions would add to the uncertainty of the compliance task.

***RET Review 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?***

Goldwind proposes that the LRET target should be increased in accordance with the additional eligible generation arising from CEFC funded projects.

In the absence of increasing the target in accordance with the additional eligible generation arising from CEFC funded projects, CEFC investment decisions could become a key factor in the LREC market. The CEFC is expected to provide support to marginally unviable renewable energy projects. These supported projects would then be expected to displace marginally viable renewable energy projects in the RET. On this basis, the CEFC investment decisions would

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<sup>4</sup> Australian Greenhouse Office. (2003). Renewable Opportunities, A Review of the Operation of the Renewable Energy (Electricity) Act 2000. Canberra: Commonwealth of Australia.

provide an unpredictable “wildcard” element to the LRET. The scale of CEFC’s available funding is significant and therefore the potential for CEFC decisions to have an unintended impact on the LREC market is also significant.

If the LRET target is not increased the overall effect will be a change in the mix of renewable energy generation<sup>5</sup>. This will constrain the investment from least cost renewables which would be counter to the intentions of the RET scheme.

***RET Review Question - Is the calculation of individual liability using the Renewable Power Percentage the most appropriate methodology***

Goldwind supports the current method for setting the Renewable Power Percentage.

***RET Review Question - Is the shortfall charge set at an appropriate level to ensure the 2020 target is met?***

Goldwind supports the current shortfall charge.

***RET Review Question - What are the costs and benefits of the current exemption arrangements? Are they appropriate?***

The exemptions for emissions intensive trade exposed businesses and self-generators were provided to allow these businesses to remain competitive in the face of rising costs of carbon emissions and rely on spreading the costs of the avoided liability over the remaining liable parties and ultimately the electricity consumer.

One of the benefits of the RET scheme is that the costs of the scheme are spread across a large base of liable parties, limiting the price that is passed through. Whilst care needs to be taken not to narrow the base, it is recognised that exemptions have been made by Government to take into account the impact of other policy measures.

***RET Review Question - Is a list approach to ‘eligible renewable sources’ appropriate?***

Clause 17 of the *Renewable Energy (Electricity) Act 2000* sets out the list of renewable energy sources based on a definition provided by the International Panel on Climate Change ie that the source is being replenished by natural processes at a rate that equals or exceeds its rate of

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<sup>5</sup> Climate Change Authority. (2012, August 20). *Renewable Energy Target*. Retrieved August 21, 2012, from Climate Change Authority: <http://climatechangeauthority.gov.au/ret>



use<sup>6</sup> (Climate Change Authority, 2012). Goldwind believes this is a sound basis for identifying eligible renewable sources.

Goldwind agrees with the Clean Energy Council assertion that technology eligibility has been debated on numerous occasions and over a long period of time. Any call for this to be re-examined on the basis that a new source of (currently ineligible) technology seeks the incentives of the current RET, should be resisted<sup>7</sup>.

***RET Review Question - Should waste coal mine gas be included in the RET?***

Goldwind support the recommendations of the Renewable Energy Sub Group of COAG to not extend eligibility to new waste coal mine gas (WCMG) generation under LRET as it is not an renewable energy source and existing waste coal mine gas generation was originally included in the RET as a transitional assistance measure only until the introduction of the then Carbon Pollution Reduction Scheme.

This is reflected in the fact that annual targets under the RET were increased to ensure WCMG would not crowd out renewables or impact on achievement of the 20 per cent renewable energy target for 2020<sup>8</sup>.

## **2.2 Small-scale Renewable Energy Scheme**

***RET Review Question - Should there continue to be a separate scheme for small-scale technologies?***

There needs to be a continuation of the separation of the SRES & LRET schemes for the small scale and large scale technologies.

For small scale technologies the deeming provisions were established to help overcome the financial barriers for entry into the market and thereby greatly increase the potential for

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<sup>6</sup> Climate Change Authority. (2012, August 20). *Renewable Energy Target*. Retrieved August 21, 2012, from Climate Change Authority: <http://climatechangeauthority.gov.au/ret>

<sup>7</sup> Clean Energy Council. (2012, September). *CEC response to RET Issues paper*. Retrieved September 12, 2012, from Clean Energy Council: <http://www.cleanenergycouncil.org.au/policyadvocacy/Submissions/current.html>

<sup>8</sup> Department of Climate Change and Energy Efficiency. (2012, April 5). *COAG Review of Specific Renewable Energy Target (RET) Issues*. Retrieved August 22, 2012, from Department of Climate Change and Energy Efficiency: <http://www.climatechange.gov.au/publications/renewable-energy/coag-review-specific-ret-issues.aspx>

additional renewable energy generation. History has shown that the differences in the rules for small and large renewable energy projects have resulted in very significant unexpected market behaviour.

The fundamental differences in the rules/regulations between the small and large schemes means they should remain separate to ensure policy objectives can be achieved and market outcomes can be predicted.

***RET Review Question - Are the deeming calculations for different small-scale technology systems reasonable?***

The deeming provisions are reasonable for the small scale technologies as long as the SRES is maintained as a separate measure from the LRET.

According to the Clean Energy Council the deeming provisions are reviewed regularly and adjusted as needed. The few checks on deeming provisions using measured output data have found that the provisions align closely with actual output<sup>9</sup>.

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

The unintended consequences on the RET market from using REC multipliers should be avoided in the future.

The REC multiplier and deeming provisions together with State incentives such as feed in tariffs for small generation systems resulted in explosive growth in the creation of RECs. This resulted in an oversupplied REC market and a loss of investor confidence in utility scale developments.

The separation of the SRES and LRET has taken some time to resolve this issue and in 2012, the LREC market has started to again function as intended.

Goldwind agrees with the comments in the RET Review Issues paper that multipliers tend to reduce the environmental effectiveness of a scheme as a certificate no longer equates to output (in this case 1 MWh of electricity). Multipliers therefore increase the number of certificates and,

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<sup>9</sup> Clean Energy Council. (2012, September). *CEC response to RET Issues paper*. Retrieved September 12, 2012, from Clean Energy Council: <http://www.cleanenergycouncil.org.au/policyadvocacy/Submissions/current.html>

in the case of the SRES, the cost of the scheme without necessarily providing a corresponding increase in renewable energy generation<sup>10</sup>.

The key lesson learned is that changing the structure of a scheme can result in unintended consequences – such outcomes should be avoided.

### **2.3 Diversity of Renewable Energy Access**

***RET Review Question - 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?***

Goldwind supports the current eligible renewable energy sources being retained.

Renewables diversity can be driven through other mechanisms such as the Clean Energy Finance Corporation and/or the Australian Renewable Energy Agency funding programs. It will be important however to ensure any additional generation from projects supported by these other mechanisms are accommodated in increases to the LRET target.

The ARENA and CEFC programs should have the effect of progressing emerging technologies to a commercialised status. Once renewable energy technologies are at a commercialised stage, the SRES and LRET have the role of supporting the large scale deployment of least cost renewable energy sources.

### **2.4 Review Frequency**

***RET Review Question - What is the appropriate frequency for reviews of the RET?***

Goldwind suggests that there should be less frequent reviews of the RET scheme.

The Commonwealth Government's Renewable Energy Target scheme has been reviewed on a number of occasions since its introduction in 2001. During each review period investment has stalled while potential investors wait to see what changes are proposed then make an assessment of the potential impact of the changes on their investment decisions. The Clean

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<sup>10</sup> Climate Change Authority. (2012, August 20). *Renewable Energy Target*. Retrieved August 21, 2012, from Climate Change Authority: <http://climatechangeauthority.gov.au/ret>



Energy Council has stated that they believe that this is the biggest single risk to the achievement of the 20% target<sup>11</sup>.

Goldwind observe that LRET is now operating as intended and the market will benefit from a period of regulatory stability with resultant investment in renewable energy developments to achieve the target.

***RET Review Question - What should future reviews focus on?***

Future reviews should focus on the need for higher targets and scheme extension to ensure the viability of the Australian renewable energy industry.

Goldwind believe that the scope of future reviews should be narrowed to exclude those matters that have been reviewed repeatedly over the past years and there has been no material change in the scheme circumstances.

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<sup>11</sup> Clean Energy Council. (2012, September). *CEC response to RET Issues paper*. Retrieved September 12, 2012, from Clean Energy Council: <http://www.cleanenergycouncil.org.au/policyadvocacy/Submissions/current.html>