EPURON

Level 11, 75 Miller St
NORTH SYDNEY, NSW 2060
Fax 02 9922 6645
Phone 02 8456 7400

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To: Climate Change Authority
submissions@climatechangeauthority.gov.au

Dear Sir/Madam,

RENEWABLE ENERGY TARGET REVIEW – ISSUES PAPER

Thank you for the opportunity to make a submission on the review of the Renewable Energy Target.

The Renewable Energy Target is the key mechanism for progressing towards a renewable energy future for Australia. This review comes at a time when the large-scale renewable industry is recovering from several years of depressed levels of activity caused by a range of factors including the six year delay from the 2003 Tambling Review of the MRET, and its recommendations for expansion of the scheme, to the 2009 expanded Renewable Energy Target, the global financial crisis, and the solar multiplier Renewable Energy Certificate (REC) price depression effect.

The RET provides significant opportunity for private investment in rural and regional Australia. The costs of compliance with the RET are spread lightly across all electricity consumers in the country and represent a very small and decreasing component of energy bills. It is clear that there is a significant advantage to each State to maximize the number of eligible renewable projects built within its jurisdiction. The investment opportunity brought by each project that moves through construction to long-term operation and maintenance includes local and regional contracts and jobs, skills development, flow-on benefits for service providers and longer term permanent job creation and associated benefits.

In addition there is a national benefit in terms of increased security and diversity of energy supply. As the cost of non-renewable energy increases unpredictably, the cost of renewables continues to decline. As a result, the RET is providing long-term protection for energy users against future energy price increases and volatility.

The large-scale renewable energy industry in Australia is poised to enter a period of relative stability, enabling wind and other projects to move to financing and construction. The key driver of this upswing in activity is the RET. In this context it is with a degree of apprehension that the industry responds to this current review. In short, while the review is mandated, in the interests of maintaining the confidence currently being expressed in the sector by

national and international companies the key message from the renewable energy industry is that 'the RET is not broken so don't try to fix it.'

Epuron background

Epuron is a NSW-owned renewable energy developer. Established in 2003 as Taurus Energy it has gained planning approval for a number of wind farm developments in the State including: Snowy Plains, Cullerin Range, (built and owned by Origin Energy), Conroy's Gap, Gullen Range (expected to be under construction before the end of 2012), Silverton (a joint venture with Macquarie Capital Wind Fund and now owned by AGL Energy) and White Rock.

Epuron has always believed in the potential for wind energy in NSW. We note that Cullerin Range is one of the highest-yielding wind projects in the NEM, achieving an average capacity factor of over 40% since its commissioning in mid-2009.

Epuron has other projects within the NSW planning system at various stages of development, including wind energy projects known as Rye Park, Liverpool Range, Yass Valley and Birrema. Epuron is also progressing a number of smaller wind farm developments such as Eden Wind Farm through the local Council/Joint Regional Planning Panel approval process in NSW, all of these wind farm developments attract investment opportunity under the RET.

In addition to its wind activities, Epuron is completing the construction of solar (photovoltaic) power stations at three remote communities in the NT and is developing further solar and wind projects around Australia.

Fulcrum3D

Epuron has a sister company Fulcrum3D[1] which is a remote sensing start-up company based in North Sydney. Fulcrum3D has designed a SODAR device which uses sound pulses to measure 3-dimensional wind speeds up to 200m. This start-up company was established in response to the need for cost-effective, flexible, accurate wind data enabling development companies to assess wind resource and develop wind farm sites in direct response to the requirements of the Renewable Energy Target.

Since its formation in mid-2011, Fulcrum3D has installed SODARs in NSW, Victoria and WA and is now contemplating its first export orders.

Fulcrum3D is carrying out and expanding high-tech electronics design and manufacturing in Sydney of a new device that has a global market. This is as a direct result of the growth in the Australian wind industry over the last 10 years, in response to Renewable Energy Targets.

[1] Fulcrum 3D website at http://www.fulcrum3d.com

Responses to the Issues Paper

The RET Issues Paper raises several questions, those issues which relate to Epuron's business are addressed below.

Are the existing 41,000GWh LRET 2020 target and the interim annual targets appropriate?

The 41,000GWh target and the interim annual targets are both appropriate and legislated. Setting a clear GWh target which, as is stated in the Renewable Energy (Electricity) Amendment Bill 2009 explanatory memorandum[2] *"will deliver the Government's commitment that the equivalent of at least 20 per cent of Australia's electricity comes from renewable sources by 2020"* provides certainty for all parties in the delivery chain to proceed with the investment required at each stage of a project from development to construction and operation. If the legislated target exceeds 20% in 2020 this is foreshadowed by the Act and beneficial in serving to cut the cost of the progressive transition towards a sustainable stationary energy sector for Australia.

What are the implications of changing the target in terms of economic efficiency, environmental effectiveness and equity?

Economic efficiency

It would be economically inefficient to change the target. Even changes that appear to be small can have unpredictable consequences in market mechanisms as was seen with the solar multiplier. The sector requires stability to enable it to work through the external uncertainties that inevitably present. Key issues to note are:

- When legislation is put in place for a defined period providing certainty over the quantum and mechanism of investment any change which is not anticipated by the legislation creates regulatory risk which causes delay and increases costs.

- While a minor reduction, or even increase, in the GWh target may not appear to be significant it would nonetheless create great uncertainty in Australia and beyond. Any change to the GWh target is not foreshadowed in the legislation. The review is stated to be of the operation of the Acts[3] and regulations and the diversity of renewable energy access to the scheme. The mandated GWh target is not mentioned in matters for review. The government and industry knows that well intended alterations such as the solar multiplier can have devastating consequences. The RET is required to be reviewed[4] before 31 December 2012 and each subsequent review must be completed within 2 years after the deadline for completion of the previous review.

  There would be significant uncertainty generated for such long gestation projects if the GWh target were to be subject to change every two years.

- The renewable energy projects that move to construction are selected from all those available in the market at any given time by large companies with obligations under the

[2] Renewable Energy (Electricity) Amendment Bill 2009, Explanatory Memorandum
[3] Renewable Energy (Electricity) Act 2000, Clause 162 of Part 11 - Audit
[4] Renewable Energy (Electricity) Act 2000, Clause 162 of Part 11 - Audit

RET and those taking a 'merchant generator' approach. These companies assess potential projects against each other and against alternative investment opportunities. Naturally the most viable projects proceed first. An imbalance in the supply and demand chain, caused by new uncertainty in the RET, would adversely affect this ability to create a pipeline of viable renewable energy projects to move to construction. This has the potential to decrease the market's ability to meet the targets.

- A stable regulatory environment produces the greatest opportunity for investment and lowest-cost finance (both equity and debt) with the consequential roll out of regional and local jobs and flow on benefits,

- The international perception of Australia as a low-risk investment destination would be adversely affected. This would reduce the number of investors competing to participate in the market and increase the risk premium on debt and equity.

Environmental Effectiveness

The RET Act defines ecologically sustainable as an action that is: *consistent with the following principles of ecologically sustainable development:*

- *decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations;*

The lead time from site identification to wind farm construction is around 4-8 years. Any uncertainty within that period impacts upon (and usually delays) the investment decision to proceed to the next stage of the development thus impacting upon the ability to deliver generation which contributes to the target of the Act.

Equity

Some of the consequences of uncertainty which resulted from the previous depressed levels of activity in progressing wind farms from approved sites to construction included:

- Land-owner agreements which are generally for around 5 years coming to the end of their term. Some agreements required re-negotiation and landowners are naturally averse to tying up their land without a clear time-frame. This clear time-frame had previously been given but had not eventuated. This has the potential for a reluctance to recommit. The land agreements are pivotal for investment certainty.

- Communities with projects in their area having no clear understanding of when the projects might be built. Local contractors working out their workforce and budget becoming frustrated by the uncertainty which stopped them from planning. While this is a normal business difficulty it was felt by the wider communities waiting for news of when construction would occur.

- The consequence of uncertainty within the community is that misinformation and disillusionment can set in. This can have a negative effect as new projects in the area move through the planning process.

- Planning approvals ticking away with the possibility of having to seek modification for extended start dates of projects which is a time consuming and costly process.

Inter-generational equity dictates that it is incumbent upon the current decision-making generation to proceed with "development that meets the needs of the present without compromising the ability of future generation to meet their own needs". The RET ensures that eligible renewable energy sources are ecologically sustainable. Wind farms enable landowners to proceed with their farming practices while creating additional income in an environmentally appropriate manner. Large-scale renewable energy projects can work well in succession planning for landholders.

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

If there is no change to the policy and legislation and no further impediments to investment we expect the 2020 target will be met.

How much capacity is needed to meet the target?

Epuron's estimate is that around 6,000 to 8,000 MW of new capacity will be required to meet the target. This estimate is consistent with various others including the CEC.

We note that the wind industry alone already has the capacity to deliver the target (but we recognize that other technologies including solar PV and emerging technologies will play an increasing role). Delivering the required build rate at lowest cost will require the industry to carefully schedule construction activities and make commitments well in advance on many projects. This can only happen in an environment of complete policy certainty.

How much is currently committed?

We do not collect such data.

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

The LRET (and MRET before it) have clearly driven investment in skills that will assist Australia now and into the future. The renewable energy sector has attracted many skilled individuals from overseas who work alongside Australians to grow both their businesses and their expertise. Engineering and investment talent from all parts of the world including Europe, the United States and China has come to Australia to service the growth in the renewable sector. This growth has also attracted back home-grown engineers and financial specialists who have developed their skills overseas and have returned home with the growth of the sector.

The sector is also creating new high technology exporting business such as Windlab Systems and Fulcrum3D.

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

Yes. Climate change is being addressed by numerous policies at State and Federal level but one clear case for the RET target to increase after 2020 is a purely economic one. As can be seen from the results of wind energy developments in South Australia, the result of the installation of more than 20% wind energy generation in SA is lower cost electricity.

A January 2012 AEMO report notes: "In South Australia, where wind generation penetration is the highest in the NEM, spot prices are more sensitive both to the degree of penetration and the reference year, with prices reduced by as much as 25% with in above average wind years for high wind penetration". [5]

Further, the on-going ubiquitous installation of solar PV will work with wind energy to enable increasing amounts of wind energy to be installed within the existing grid.

In the absence of a national energy policy there is a case to increase the target beyond 2030. It is not yet clear that the NEM will send adequate price signals to get sufficient non-renewables capacity built, and increasing renewables gives Australia more security, diversity and sustainability.

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

Yes and yes, and exactly for the reasons outlined by the Tambling Review. Equipment suppliers, manufacturers, renewable energy developers, network operators and the many hundreds of organizations and industries that contribute to renewable energy projects plan their workforce and investment with a view to short, medium and long term goals and horizons. Certainty is productive. The target should remain fixed.

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 implication in terms of economic efficiency, environmental effectiveness and equity?

No. Forecasts are inevitably wrong. All types of energy infrastructure investment are long-term investments with a lifetime of typically 25 years (eg wind turbines) to 50 years or more (transmission lines). Varying the target every year to two years is completely inconsistent with the planning and investment required for such infrastructure.

It is economically inefficient to create regulatory or country risk in a market driven mechanism with both domestic and international investors. Investors seek certainty and risks they can quantify. Whether the fixed GWh target is changed or moved or adjusted annually the implications are that it will create uncertainty and cause a slow-down in investment in the development of the infrastructure and projects required to meet the target. It would also create risk for liable entities given the mismatch of adjusting targets and the lengthy lead-time for generation projects.

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?

The industry is pressing for no change to the GWh target of the LRET. The RET is a market mechanism requiring eligible projects to be viable with no further assistance than the

[5] Wind Integration in electricity grids work package 5: Market Simulation studies; AEMO report 18 January 2012; Page 14 (http://www.aemo.com.au/~/media/Files/Other/planning/0400-0057%20pdf.pdf)

generation of RECs. The CEFC has a public policy objective with different risk/return requirements of projects which means that CEFC projects would not 'get up' under the RET alone. Assisting other renewable technologies which are beyond the research and development stage and on the brink of commerciality is important.

The CEFC Expert Review notes that: "While each investment will individually support the [renewable energy] sector, it is the cumulative impact of the positive externalities of expanding the sector experience, moving down the cost curve and creating third party benefits, which are essential to positioning Australia for a cleaner energy future."[6]

Such projects should not take the place of free-standing viable projects which compete within a robust market place. However, adding the generation output from such projects to the existing target, thereby increasing it, would appear to be a reasonable approach given that the mechanisms for administering RECs are already in place. That may be a matter for review in later years when the CEFC moves closer to identifying appropriate applicants and funding projects.

Is a list approach to 'eligible renewable sources' appropriate?

Yes.

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

Any renewable source should be eligible under the RET.

Should waste coal mine gas be include in the RET? Should new capacity of waste coal mine gas be included in the RET?

Epuron believes it should not be included in the RET. The objectives of the RET are to:

a) Encourage the additional generation of electricity from renewable sources; and

b) Reduce emission of greenhouse gases in the electricity sector; and

c) Ensure that renewable energy sources are ecologically sustainable.

Waste coal mine gas (WCMG) is neither renewable nor ecologically sustainable. There is an argument in favour of reducing the emissions intensity of waste coal mine gas (methane-rich) by generating power from it rather flaring it (with no energy recovery) to carbon dioxide. However, it would be contrary to the objectives of the Act to include it alongside zero-emissions fuels with the consequence being to give additional financial incentives to fossil fuel production. Putting waste coal mine gas to productive use is to be encouraged but not under the RET mechanism.

A previous discussion paper on the issue entitled 'Treatment of new waste coal mine gas power generation in the RET' stated that the annual targets under the RET scheme would be increased to accommodate certificates that are created by existing WCMG generators. However, COAG's Renewable Energy Sub Group recommended not extending eligibility to new waste coal mine gas generation under the LRET as WCMG "… is not a renewable energy

[6] Clean Energy Finance Corporation, Expert Review, Chapter 2, Investing in Clean Energy, 28 March 2012

source and existing WCMG generation was originally included in the RET as a transitional assistance measure…"

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

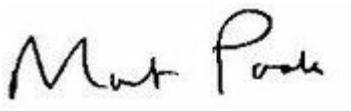
As a market mechanism which is technology neutral any technology which captures a renewable (zero-emissions fuel) resource should be permitted. It is not anticipated that this would cause a change to the existing uptake of technologies under the Act.

In summary, Epuron considers that after a long difficult period of low activity due to external influences the RET is now functioning as anticipated. With no change to the GWh target and no other notable changes it is on track to deliver upon its objectives.

It is therefore critical that no change should be made to the RET and in particular to the current GWh target.

Thank you for the opportunity to present this submission. Should you require further information please contact the undersigned.

Yours sincerely,



MARTIN POOLE

EXECUTIVE DIRECTOR

ANDREW DURRAN

EXECUTIVE DIRECTOR