



16 May 2014

Renewable Energy Target Review
Department of the Prime Minister and Cabinet
PO Box 6500
Canberra ACT 2600
Australia

By email: RETReview@pmc.gov.au

Submission for the Renewable Energy Target Review

Hepburn Wind welcomes the opportunity to provide a submission to the Renewable Energy Target Review Expert Panel and looks forward to introducing the panel to our community's pioneering renewable energy enterprise.

In the 2012 RET review, 720 Hepburn Wind supporters wrote in support of strengthening the RET, the independent Climate Change Authority heard our community voice. At the time of this submission, 1500 of our supporters have had their say in support of the RET. The community energy sector is gaining momentum and we call on the panel to recognise that this nonstatutory review has already exposed our community enterprise to sovereign risk and is damaging the fledgling community energy sector.

Background

On 22 June 2011, the two turbines of the Hepburn Community Wind Farm began generating electricity into the local distribution network, almost seven years after the project was conceived by Danish-born local builder, Per Bernard. In response to a local community's initial negative response to a large commercial wind farm development, Per catalysed the development of Australia's first community owned wind farm at Leonards Hill, near Daylesford in Central Victoria.

The 4.1 MW wind farm, owned by community co-operative Hepburn Wind, is scaled to the needs of the local community – the wind farm's annual output exceeds the annual demand of the houses of nearby Daylesford and much of the surrounding area.

The Hepburn Community Wind Farm is owned by almost 2000 members, the majority of whom are local to the region. With massive volunteer effort and nearly \$10m of community capital, the members of Hepburn Wind have shown that under the right conditions, regional communities will embrace the opportunities presented by wind farms.

Most of our member shareholders had never owned shares before, but were drawn to investing in a project that contributes to our local economy, strengthens our social fabric and reduces pollution. Our members made personally significant investments relying on the assurances that all major political parties were, at the time, united in their support for a Carbon Pricing Mechanism and the Renewable Energy Target.

Right from the start, Hepburn Wind committed to sharing the benefits of the wind farm widely within the community – not just with our members. We would argue that our benefit sharing model is the most advanced of any energy project in Australia.

Beyond the opportunity of local ownership, our benefit sharing model includes innovations such as a contribution to electricity bills for those living near the wind farm and a community fund projected to return in excess of \$1m to community-building projects over our first 25 years. After just two years of operation, our Community Fund has contributed \$70,000 to 37 community-building projects.

Furthermore, after construction, which involved more than \$7m of Australian content, we employ three part-time locals and have provided more than 24 regionally-based directors and staff with the range of commercial skills required to run a complex development, construction and generation enterprise.

Among other accolades, our wind farm has received the 2011 Victorian Premier's Sustainability Award, the 2012 Banksia Environment Award and the World Wind Energy Award as most outstanding wind farm development in 2012. The 'Hepburn Model' has inspired many other communities to pursue their own vision of harnessing local energy resources for community benefit.

Our project has educated not only our membership, but many in our community and around the country. While the nascent community energy sector will likely remain a relatively small player in the Australian energy scene, it is poised to offer economic opportunity to a large number of Australians in the transition to a low carbon future.

Questions

Q. How has the RET performed against the objectives in the Renewable Energy (Electricity) Act 2000?

The RET has and continues to deliver against the objectives of the Renewable Energy (Electricity) Act 2000 (and its various amendments).

The RET has enabled significant regional development and offered opportunities to regional communities. Industry and the community have embraced the 2020 target and stand ready to deliver many more projects that will create lasting social, environmental and economic benefits.

Almost 2000 members of Hepburn Wind, many of whom are not sophisticated investors, made personally significant investments at a time when there was longstanding bipartisan support for a RET and a price on carbon. It has been a bumpy ride.

In June 2009 the introduction of the solar multiplier resulted in the creation of a massive surplus of so called 'phantom RECs'. The amendment of the RET in 2010 addressed the cause, however the overhang of supply from the earlier period continues to depress prices and place significant financial stress on generators exposed to the market as well as developers ready to invest in the sector.

More recently, certificate markets have been impacted by too-frequent reviews and policy uncertainty.

Market exposed participants, such as Hepburn Wind, are receiving 'all-in' energy prices below long-run costs, and are relying on future corrections in the certificates market.

Q. Are there more efficient and effective approaches to achieving these objectives?

Renewable energy certificate schemes have been shown to deliver transformation of the electricity sector at low cost.

Some expert groups, including Deutsche Bank Climate Change Advisors (DBCCA) have made a compelling case that policy that meets a 'TLC' criteria – transparency, longevity and certainty – will deliver least cost transformation as projects can be delivered without the market risk premium required by projects built in certificate markets. Under this framework, Deutsche Bank contend that Feed-in Tariffs, as used in the successful German Energiewende, can deliver lower cost transformation.

Given that Australia chose the alternative path of tradeable certificates long ago and already more than \$18bn of capital has been deployed to date against this regulatory backdrop, we contend that the best outcome for all stakeholders is the maintenance of the current structure, with a view at all times to improving the transparency, longevity and certainty of the scheme.

Note that other policy mechanisms, such as carbon pricing, technology specific FiTs, research, development and commercialisation grants, etc, are not mutually exclusive. Many, if not all, are complementary.

Q. Do the objectives of the Act remain appropriate, in light of falling electricity demand and the Government's target and policies for reducing greenhouse gas emissions?

Since the passing of the Renewable Energy (Electricity) Act 2000 the scientific justification for transforming our electricity sector has become clearer and stronger such that the original 9500 GWh, then 41,000 GWh targets can be considered as stepping-stones towards a mid-century goal of near-zero emissions.

As such the objectives of encouraging additional renewable generation, to reduce emissions and do so in an ecologically sustainable manner, are now more relevant than at any time since the need for the RET was identified by the Howard Government in 1997.

Just as it is not acceptable to saddle future generations with massive levels of debt, it is not acceptable to burden future generations with dangerous greenhouse gas levels or inappropriate and outdated generation system – we must now share the burden of restructuring our energy sector.

In the shorter term and the wider context, the Renewable Energy Target has been the key driver in Australian emissions in recent years and is integral to achieving the Government’s 2020 greenhouse gas reduction target.

Given that the net impost on consumers is negligibly small, Australia can well afford the RET.

Q. How has the RET influenced the development of the renewable energy industry?

The RET has been the mainstay of the development of the Australian renewable energy sector industry and it has already delivered great benefits to communities such as our own.

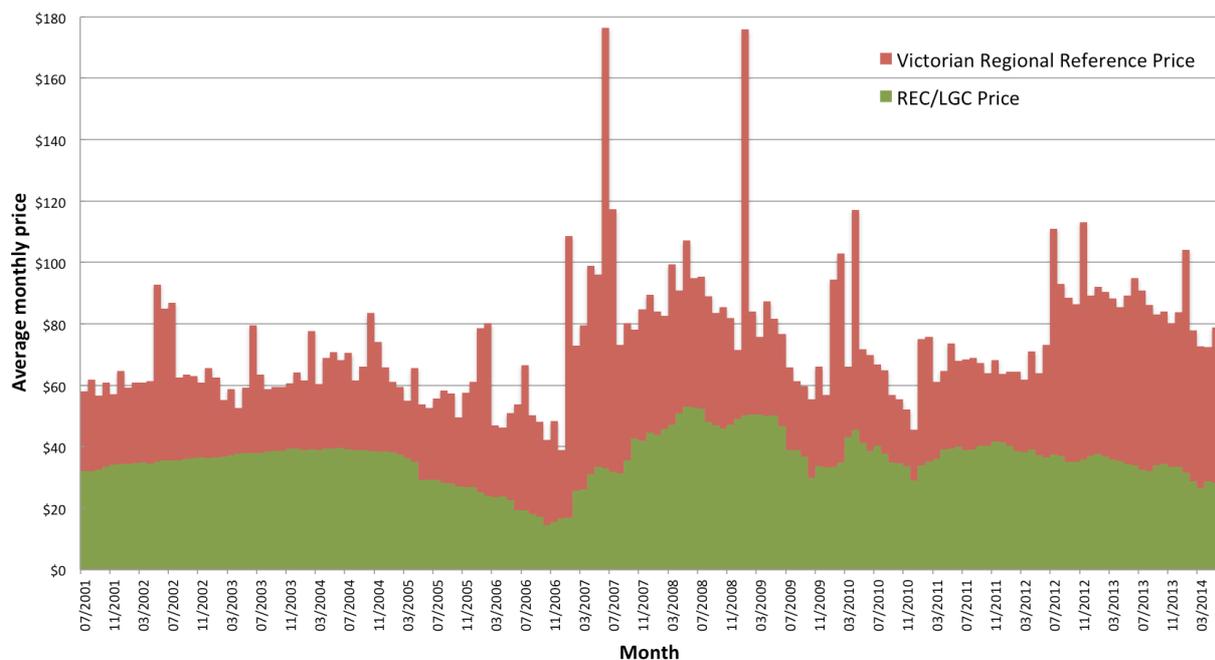
From 2008 - 2010, our 2000 members pooled their resources to build a two-turbine wind farm that generates pollution-free electricity, equivalent to the annual needs of more than 2000 homes. To date our two turbines have generated more than 30,000,000 kilowatt-hours of clean energy and our community enterprise is a major funder of local sustainability initiatives.

Our project has won many awards and has inspired and empowered many other communities around Australia to embark on the journey to build their own locally-owned renewable energy enterprises.

More broadly, the RET has enabled 25,000 jobs and \$18.5 billion of investment in what is a global growth industry. The scheme has developed skilled workers in Australia nationwide, who want to continue to work to diversify our energy supply. At less than \$1 a week for the average household and \$1 a day for the average SME, the benefits of the renewable energy target – jobs, a cleaner environment, and opportunities for community – far outweigh the costs.

It should be noted that participants in the RET have not enjoyed super-profits, in fact most participants have yet to receive commercial returns yet were built with the reasonable expectation that, without interference, the market will deliver to its design in the long term.

To explain this, the graph below shows certificate and energy prices for Victorian generators since the inception of the target. Per the design of the RET, projects are viable, and therefore financeable, when there is a high level of confidence that ‘all-in energy price’ (the sum of energy and certificate prices) meets the Levelised Cost of Energy (LCoE) of the least cost market entrant.



Wind energy has been the lowest cost technology for the majority of the existence of the RET. When we contracted our wind farm in 2010, the accepted LCoE for wind was on the order of \$120 / MWh. Since

2010 we understand that the cost has reduced to the range of \$85 - \$95. Certainly the vast majority of the renewable energy fleet was committed at a cost above \$80 / MWh and much of it above \$100 / MWh.

Since the inception of the RET, the all-in price has exceeded \$80 for only 50 months, or a third of the target’s life, and has only exceeded \$100 in 6% of months. For a quarter of the RET’s existence, the all-in price has been under \$60.

With an average Victoria all-in price of \$73.33 for the 13 years of the RET, it is probable that the majority of investors (or their Power Purchase Agreement counterparties) have yet to recoup their investments.

(Hepburn Wind acknowledges and thanks Chris Halliwell of TFS Green, part of Tradition, for the some of the data underlying this analysis.)

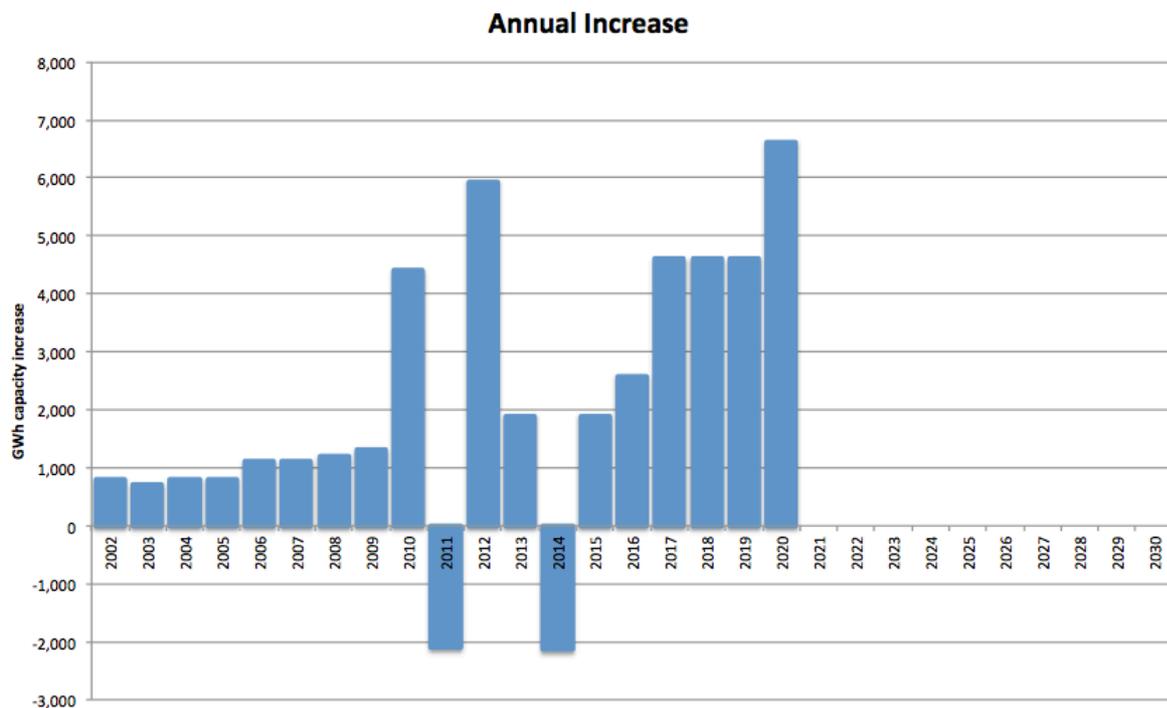
Q. Should the LRET be abolished, reduced or increased? If retained, what level should it be? What would the impact of such changes be?

In order to continue to achieve the objectives of restructuring our energy sector for towards responsible mid-century emissions targets, the RET should be increased and improved.

In the short term, some of the target from the latter half of this decade should be moved forward (with no change to the total number certificates to be surrendered in that period) to address the oversupply of certificates and provide the sector with the price signal to resume developments.

As proposed in our 2012 submission, the target should be modified to increase by 5 TWh each year from 2020 - 2029 and 7.5 TWh for the next decade. At AEMO’s conservative 1.66% growth rate this would see renewable energy provide approximately 40% by 2030 and 60% by 2040.

It should be noted that the current target trajectory has ‘baked in’ a sector ‘bust’ in 2021. Since it is the annual increase in the target, and not the target’s absolute level, that drives the development and construction of renewable energy generation, in years where the increase in the target is zero, or negative, the brakes will be abruptly put on the sector.



After a very active period starting in 2017 and culminating in 2020, there is currently a ‘demand cliff’ programmed in for 2021. By pulling some of the target forward and smoothing out the trajectory, the a bust, with its resultant dislocation and inefficiencies, could be avoided.

Furthermore, we reiterate the 2012 concept of a unique policy driver within the RET scheme to stimulate the community energy sector. As the RET is the dominant financial driver, a simple support mechanism could be nestled within the RET by adding a modest LGC multiplier of 1.5 for each MWh for community-owned, community-scale energy enterprises. In order to manage the costs of such a scheme, we propose that:

- unlike the SRES, community power enterprises operate under the LRET with no deeming provisions
- caps could be introduced, such as a limit in any given year of no more than 1% of the LRET interim target to be multiplier credits, and no more than 1% of those credits to be issued to any one enterprise
- community power enterprises can take several years to build, so there would be ample time to review the sector's progress
- at each review, determine whether the constraints are appropriate for the sector.

Q. Do small-scale renewable energy systems still require support through the SRES? If so, for what period will support be required for?

The SRES and previous arrangements have enabled a large minority of Australian households to benefit from the installation of solar PV and solar hot water systems. A growing number of SMEs and community organisations are taking up the opportunities.

Improvements in the global and local supply chains and the underlying technologies have brought down costs such that making the technologies affordable to consumers has required progressively lower levels of subsidy.

The continued operation of the SRES will provide the opportunity for more Australians (businesses and consumers) to invest in small scale renewable energy. We suggest that the subsidy levels continue to be regularly revised so as to maintain similar and reasonable payback periods enjoyed by the earlier adopters.

In such a manner, it is expected that the total cost of the SRES will progressively reduce to negligible levels over the remainder of the decade and can then be removed.

Q. Should the LRET and SRES schemes be recombined?

Many small household solar PV installations will only generate a megawatt-hour every 6 - 9 months. Early in the formation of the target, it was recognised that it was impractical to register certificates for small scale generators at the time of generation. An alternative method, known as 'deeming', was designed into the scheme, allowing customers to receive (generally via their installers) a number of certificates equivalent to the estimated lifetime of the system, at the time of installation. This is an efficient mechanism, but naturally creates certificates well in advance of the corresponding generation by the systems.

In addition these certificates relate to displacement of demand 'behind the meter' at the customer's premises and therefore are effectively competing in the retail market. Large-scale generation certificates, on the other hand relate to actual generation, after the fact, from technologies competing in the wholesale electricity market.

The differences between these markets are significant enough that all parties saw the benefits in splitting the RET into the LRET and SRES in 2010. The justifications for the split remain as valid today as they did then.

Q. What impact is the RET having on electricity markets and energy markets more broadly? How might this change over time?

It is generally accepted that the RET adds 3 - 5% to the average residential electricity bill and the Call for Submissions provides a figure of \$337 for the average SME. As such, the average household currently pays less than \$1 a week and the average SME pays less than \$1 a day for the RET.

The SRES has comprised the majority the RET costs in recent years and projections from AEMC show a significant downward trend over the coming years.

Provided that the LRET is left to run its course without interference, the LGC price will remain well under the \$65 penalty price. Even at penalty price, the gross impact will remain under 5% for the average residential consumer.

In recent years there has been a growing appreciation of the downward price impact renewable energy (both large and small) is having on the wholesale electricity markets due to the merit order effect. The review must acknowledge that the gross impact of certificate obligations is at least partially offset by the merit order effect, and perversely, parties with exemptions may be benefitting from lower energy prices.

It should also be noted that renewable energy generally competes against gas in the bidding stack, less so against coal. This will only increase as coal generators reach their end-of-life and coal continues its now well established decline in electricity market share.

In the context of export price parity for gas, the RET generally provides cheaper electricity, allowing gas directed to activities with higher economic value, or, importantly, to be left in the ground.

The modest cost of the RET needs to be weighed up against the benefits of regional development, modernisation of the generation fleet and transmission networks and opportunities presented to communities such as our own.

Q. Are the current exemption arrangements appropriate?

We recognise the importance of granting reasonable exemptions to Emissions Intensive Trade Exposed (EITE) sectors of the economy, however it is important to keep such exemptions as targeted as possible to ensure that the costs are shared equitably across the remainder of the economy. It is important that eligibility arrangements are appropriate and costs of the schemes to the rest of the economy remain fully transparent.

Q. How should reforms to the RET be implemented? What transitional issues could arise and how might they be addressed?

The target must not be weakened. Our community has invested heavily on the back of strong commitments from all parties, and like all other generators established under the RET, our investment simply wouldn't have been made without such commitment.

The threat of softened political support for the scheme has introduced real sovereign risk to our community. Any weakening of the target would result in the destruction of value for our investment. A removal of the target without compensation could result in a total loss of investment.

In the event of any weakening, we will seek appropriate transition arrangements and/or compensation to make our community's investment whole again.

With more than five million Australians investing in renewable energy assets through their superannuation, we contend that the size of the compensation would far outweigh the magnitude of any savings.

A weakening of the RET would halt the development of the nascent community renewable energy sector, removing opportunity of local enterprise in hundreds of communities, mostly regional, like our own.

Moreover, a weakening of the RET would transfer unacceptable environmental burden to future generations.

Q. How does the RET interact with other government policies that have, or will have, an impact on the operation of the RET, or that impact on renewable energy or energy markets more generally? What can be done to improve the efficiency and effectiveness of these interactions in delivering intended policy objectives?

Carbon pricing and the RET are complementary policies. If the carbon pricing framework is dismantled, watered down or fails to deliver the pricing signals required by investors, the RET will continue to provide the required economic drivers for deployment of renewables. On the other hand, if the carbon price provides the strong signals required for investment the LGC market will respond with reducing prices.

The RET has the proven ability to reduce carbon emissions in the generation sector and, presuming the Government is genuine in its stated 2020 greenhouse gas reduction target, the RET should be considered a valuable plank in the Direction Action policy suite.

Note that, as a market based mechanism, the costs of the RET will reduce as other complementary mechanisms deliver – as such it could be considered as an insurance policy for delivering a guaranteed level of abatement in the electricity sector.

Q. Can the administrative arrangements of the RET be simplified? If so, how can they be simplified and what would be the risks of doing so?

In general, the administrative arrangement of the RET are straight-forward and familiar and low overhead. It should be noted that the costs for administering the scheme are significantly recovered by certificate administration fees.

We note, however that the liquidity of the market can at times be severely limited. It has not been unusual for several weeks to pass without any significant LGC trading volume.

As a relatively small generator fully exposed to the market, and without the working capital capacity to 'bank' a significant number of LGCs, this lack of liquidity can be problematic.

During the public consultation for the 2012 review, a number of participants briefly suggested that the Review give consideration to transitioning from annual LGC surrender to quarterly surrender, with the aim of increasing liquidity in the LGC market.

While some liable parties might consider this to be an additional burden, STCs are already surrendered on a quarterly basis, so the increase in regulatory burden of adopting a uniform approach of surrendering LGCs and STCs quarterly would be minimal.

We would like to add the weight of our voice to this practical suggestion that would go some way to addressing a weakness in the operation of the LGC market.

Q. Should any other energy sources be included in the LRET? Should any non-renewable (but low emissions) energy sources be included? Should any new small-scale generation technologies be eligible under the SRES? Should any new displacement technologies be eligible under the SRES?

A well functioning Renewable Energy Target delivers zero-emissions electricity generation at least cost, thereby reducing the average emissions intensity of the electricity supply system and helping to establish an electricity sector to meet the challenges of the 21st century.

A number of other technologies could also contribute to the lowering of the carbon intensity in our electricity sector. Expanding the scope of the RET to include these technologies would require the careful selection of appropriate baselines to ensure that the net effect was a lower cost with at least as much abatement and eligibility would need to take into account the role of the technology in transforming the electricity sector. We would welcome a debate of this issue.

Q. What should be the frequency of statutory reviews of the RET?

As with each of the other reviews of the RET, the process of the current review has had significant impact on the certificate market and has resulted in stalling of new development. Billions of dollars of potential projects, and the means to construct them, lay idle during a period of policy uncertainty. This uncertainty undermines investment confidence and the market's efficiency, which will result in a failure of the market. A market in failure will not deliver the targeted levels of renewable energy at least cost.

We agree with the 2012 RET review that biennial reviews are not necessary. In order for the sector to continue building at least cost, sovereign risk must be reduced to an absolute minimum. As such, any reviews must ensure that the legislative goal posts are not moved for projects that have been built under prior arrangements.

We suggest that the next reviews should take place in 2020, 2025 and 2030 and be structured so as not to impose additional risk to capital already committed.

Modelling assumptions

Hepburn Wind would like to make some comments on the modelling assumptions used in this review.

Carbon pricing

We note that the review does not intend to take into account any carbon price in the modelling. Nonetheless, many of our trading partners have a carbon price and it is likely that carbon pricing will only become more prevalent in the coming years. It is likely that Australian electricity generators will be subject to a carbon price in the future, as they are currently. To be meaningful, all modelling must include a scenario with a price on carbon.

Fossil fuel-based generation assumptions

Regardless of the existence of the carbon pricing, the future costs of fossil fuel generation must be considered for the review's electricity market modelling.

It is widely considered that the prospects for the construction of new coal fired generation in Australia are poor, due to increasing technology and financing costs, large minimum viable scale, and long-run uncertainty about the pricing of carbon emissions over the asset life.

Likewise, non-peaking gas generation faces significant issues – putting aside carbon pricing risk, the biggest risk is the price of fuel. Gas prices in Australia are now linked to those of LNG, specifically netback prices. LNG prices are linked directly to those of crude oil. Domestic gas prices are being increasingly set with reference to crude oil prices in US dollars. In addition to coping with high gas prices, owners of gas-based generation must cope with the volatility of foreign exchange. A gas-dominated electricity sector would confer a very high risk on Australian electricity consumers.

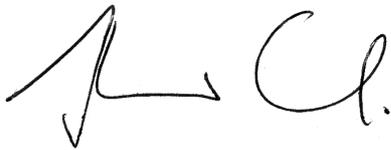
The modelling assumptions must take these into account the minimum viable project scale, finance expense, fuel price volatility risk and future carbon price risk for fossil fuel generators.

Expensive finance for fossil fuel-based generation will likely prevail for the long term and make new generation capacity based on fossil fuels more expensive than would be the case in their absence. This is independent of the RET and, as stated above, should be taken into account in the modelling inputs.

We note that there is no mention of these risks in the report in the presentation from the RET Review Modelling Assumptions Workshop.

We thank the RET Review Expert Panel for the opportunity to make a submission.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Holmes à Court'.

Simon Holmes à Court
Founding Chair

(Prepared in collaboration with directors Daniel Magasanik, John Edgoose and Community Officer Taryn Lane)