Submission to the
Renewable Energy Target Review

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September 14, 2012

Submissions
Climate Change Authority
GPO Box 1944
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14/09/2012

Beyond Zero Emissions submission to the Review of the Renewable Energy Target Issues Paper

Beyond Zero Emissions' (BZE) goal is to develop blueprints for the implementation of climate change solutions that will rapidly reduce emissions and give our society and global ecosystems a chance of surviving into the future. In partnership with the University of Melbourne Energy Research Institute we are undertaking the award-winning Zero Carbon Australia Project, which is putting together fully costed transition plans for moving Australia to zero emissions in ten years using commercially available technology.

We welcome the opportunity to provide comments in response to the *Review of the Renewable Energy Target Issues Paper.* We believe that the Renewable Energy Target (RET) scheme has been a crucial mechanism in deploying renewables energy in Australia to date. However, we also recognize a desperate need to achieve a transition to 100% renewable energy electricity system and rapid decarbonisation of the Australian economy. The RET is one policy option that can play an important part in the decarbonisation challenge and rollout of renewable energy generation.

This submission outlines the following key points:

- The 20% RET acts as a limit to renewable energy deployment;
- The 2020 RET should be expanded to 40% (82,000 GWh) and continue to support the development and deployment of wind generation;
- The RET should be expanded beyond 2020 to continue the deployment of renewables, and prevent a boom/bust scenario;
- The 'phatom RECs' should be removed from the scheme to rejuvenate the wind industry;
- The RET should not be a floating percentage target;
- The RET should be expanded to accommodate CEFC funded projects;
- Any consideration of scheme cost of the RET schemes should include the Merit Order Effect;
- The shortfall charge should be increased to prevent liable entities simply paying the charge;
- Waste Coal Gas should be removed from the scheme;
- The SRES scheme is important to support a suite of technologies;

- Feed-in tariffs a superior support mechanism. Whilst state-based schemes are rolled back, and until there is a national feed-in scheme, the SRES scheme should provide a set subsidy;
- Alternative mechanisms (e.g. large scale-feed in tariffs, or additional banded RETs) must be considered to achieve a 100% renewable energy system. The RET must be able to compliment additional support mechanisms; and
- Future reviews should be limited to increasing the RET.

The following submission provides the context for the Beyond Zero Emissions submission to the RET reviews, and then addresses some of the key questions raised in the issues paper.

Matthew Wright
Executive Director
Beyond Zero Emissions

Context

The Climate Challenge

A "safe" climate is about to slip out of reach. Present atmospheric levels of CO_2 are at 390ppm[1], and the evidence demonstrates that the supposed 2°C "guardrail" (450 ppm) poses serious risks, and represents an extreme upper limit for CO2-e concentrations[2]. Current international emissions targets fall well short of even this risky 2°C guardrail, and the world is presently on track to use up its carbon budget by 2025 and raise global average temperature by 6°C[3]. The 2011 all time high energy emissions even lead International Energy Agency Chief Economist Fatih Birol to announce that "the door to a 2°C trajectory is about to close".

Beyond Zero Emissions advocates a return to 350ppm (or below) as the necessary long-term outcome. This will require a rapid decline in global fossil fuel emissions by 2020 and emissions draw-down in following years to reverse our overshoot. Australia must rapidly decarbonise its economy and play a constructive role in global efforts to address the climate change challenge.

Zero Carbon Australia

Decarbonisation of Australia's economy can be principally achieved through the large-scale rollout of commercially available renewable energy technologies. The *Zero Carbon Australia Stationary Energy Plan (ZCA)*, a research partnership between Beyond Zero Emissions and the University of Melbourne's Energy Research Institute, demonstrates the technical feasibility of shifting to a 100 percent renewable energy system in ten years[4]. Transitioning the stationary energy sector to 100 percent renewable energy sources is achievable, and requires policies commensurate to the challenges of decarbonising the Australian economy.

The Renewable Energy Target can play an important part in meeting this challenge; to date, the RET has deployed renewables and must continue to drive deployment and investment in renewable energy technologies. However, the RET alone (in the current configuration, alongside the Commonwealth's carbon pricing mechanism) is insufficient to achieve the necessary and rapid decline in fossil fuels emissions in the electricity sector. The RET must accelerate the deployment of renewables and the realisation of a rapidly decarbonised electricity sector. The RET should also compliment or supplement mechanisms that will deliver a zero carbon Australia, such as feed-in tariffs.

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[1] P Tans and R Keeling, "Trends in Carbon Dioxide.," *NOAA/ESRL*, 2011, http://www.esrl.noaa.gov/gmd/ccgg/trends/.
[2] Fergus Green and Reuben Finighan, "Laggard to Leader: How Australia Can Lead the World to Zero Carbon Prosperity" (Beyond Zero Emissions, July 2012), http://media.beyondzeroemissions.org/Laggard_Leaderv1.pdf.
[3] Ibid.
[4] Wright, M. Hearps, P. et al "Zero Carbon Australia Stationary Energy Plan" (Melbourne Energy Institute, Beyond Zero Emissions, July 2010), http://media.beyondzeroemissions.org/ZCA2020_Stationary_Energy_Report_v1.pdf.

The Large-scale Renewable Energy Target

Page 25: Are the existing 41,000 GWh LRET 2020 target and the interim annual targets appropriate?

Beyond Zero Emissions strongly recommends an expansion of the current 41,000 GWh large-scale renewable energy target (LRET) to 82,000 GWh by 2020 (at the minimum).

To date, the LRET has been successful in deploying wind (and some biomass), with over 6500 GWh of wind (and over 1900 GWh of biomass) electricity generated in 2011[5]. As presented in the issues paper, this is likely to continue, with modelling by the AEMC (and others, including AEMO and ROAM consulting) indicating that most of the future renewable capacity under the LRET is likely to be in the form of wind and biomass.

The renewable energy target is thus effectively a wind energy target. Modelling undertaken by ROAM consulting confirms this: even with a hypothetical 30% renewable energy target, the majority of new renewable energy generation is sourced from wind power (see Figure 1 below)[6].

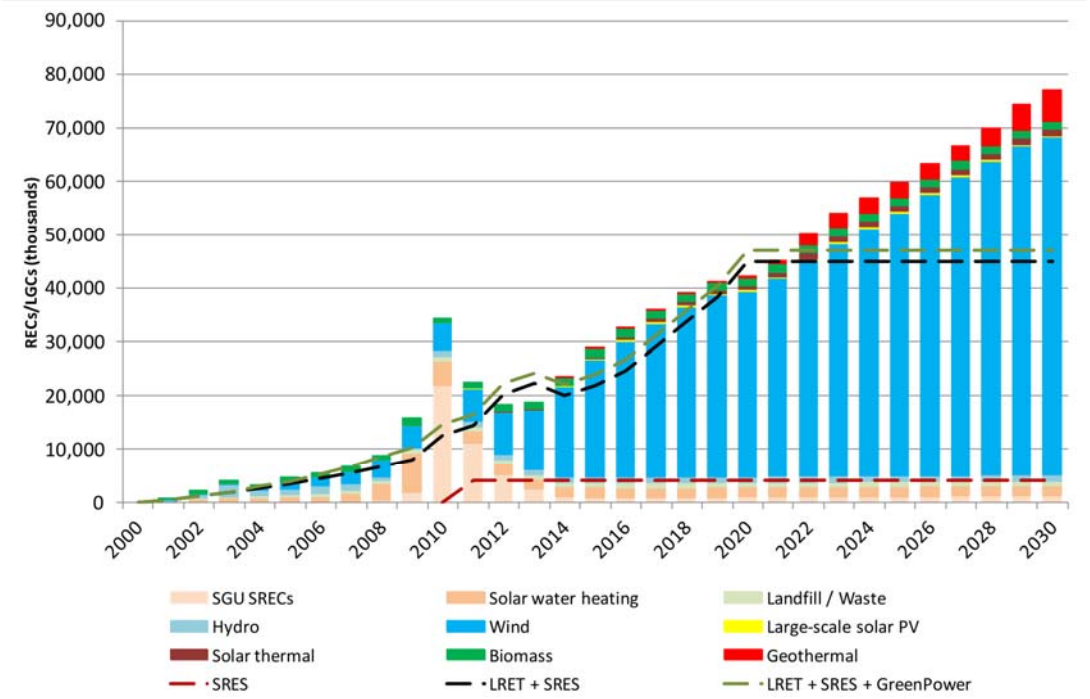

Figure 1: Renewable Energy Generation - 30% target [source: ROAM 2012]

[5] AEMO, "Electricity Statement of Opportunities" (Australian Energy Market Operator, 2012), http://www.aemo.com.au/Electricity/Planning/~/media/Files/Other/planning/2012_Electricity_Statement_of_Opportunities.pdf.ashx.
[6] ROAM, "Solar Generation Australian Market Modelling" (Australian Solar Institute, June 6, 2012), http://www.australiansolarinstitute.com.au/SiteFiles/australiansolarinstitutecomau/Report_ASI00003_-_Solar_Market_Modelling_2012-06-06a.pdf.

The ZCA Stationary Energy Plan illustrates that a 40% wind and 60% solar energy mix could provided the energy requirements for the decarbonised Australian Economy, in 10 years. Beyond Zero Emissions advocates the RET's current and projected support for the wind industry, and recommends that the 2020 target be doubled to allow 40% of energy to be sourced from wind. This allows enough wind energy to be deployed, in the required timeframe, to rapidly decarbonise its economy and play a constructive role in global efforts to address the climate change challenge.

It should be noted that there is more than enough wind capacity currently already approved or proposed to meet the LRET target[7], and thus the target is functioning more like a limit. Increasing the target will not make the scheme any less achievable, and is well within the ability of the economy as identified in the Stationary Energy Plan.

It is well documented that an excess of LGC's (banked renewable energy certificates from the previous scheme, namely 'phantom RECs') have stymied the development of the wind industry. The Australian Energy Market Operator suggests that new LGC's will not be required until 2016 (see Figure 2). Whilst provisions exist for excess certificates, they are clearly inadequate, with wind development stalling, and significant installations not expected until 2016. Doubling the LRET target would help address this issue, and re-invigorate the renewable energy industry. At a minimum, the short-term LGC liabilities should be increased to remove the 'phantom RECs', which do not represent actual renewable generation, easing the glut and re-invigorating the LGC market.

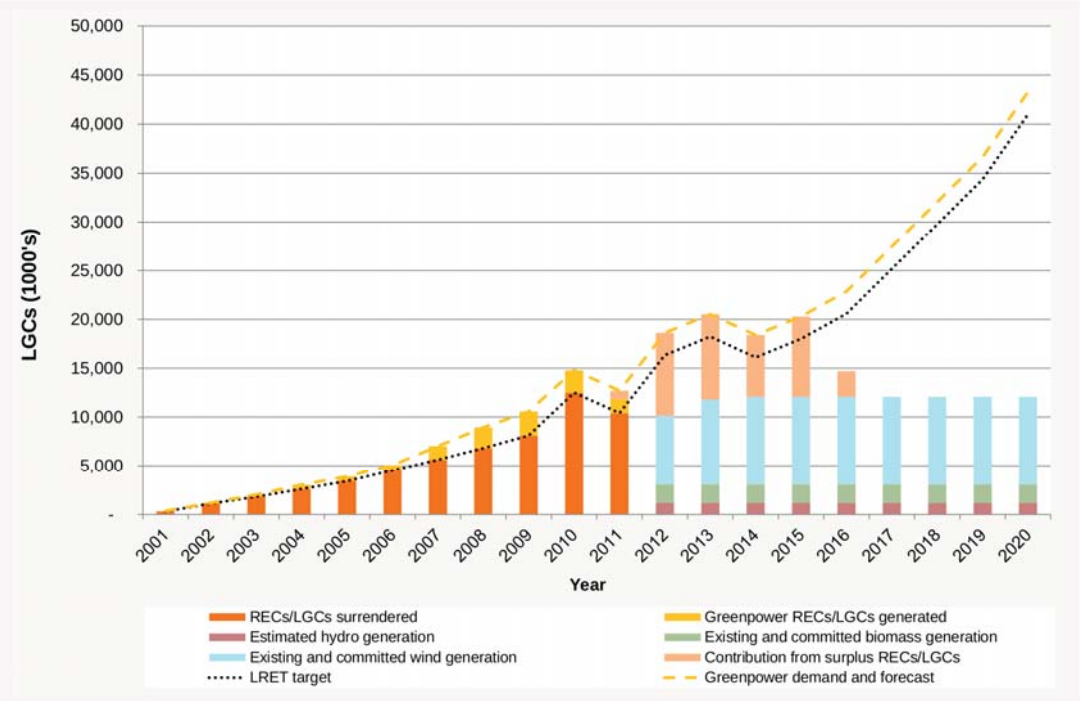

Figure 2: Forecast REC and LGC contributions to the LRET [source: AEMO]

[7] Clean Energy Council, Response to RET Issues Paper, September 11, 2012.

Page 25: In the context of other climate and renewable policies, is there a case for the target to continue to rise after 2020?

There is a strong case for increasing the target beyond 2020, particularly if the 2020 target is not increased. Recent modelling modeling by ROAM Consulting illustrates that once the 2020 target is achieved, the deployment of renewable energy will come to a halt (see Figure 3 below)[8]. Even with carbon pricing, it is not until 2028-29 that the "average" wind farm is profitable without any form of support[9]. Other related policies, currently on the table (including carbon pricing), are obviously insufficient to continue and sustain the necessary deployment of renewable technologies to facilitate the rapid transition to a zero emissions economy.

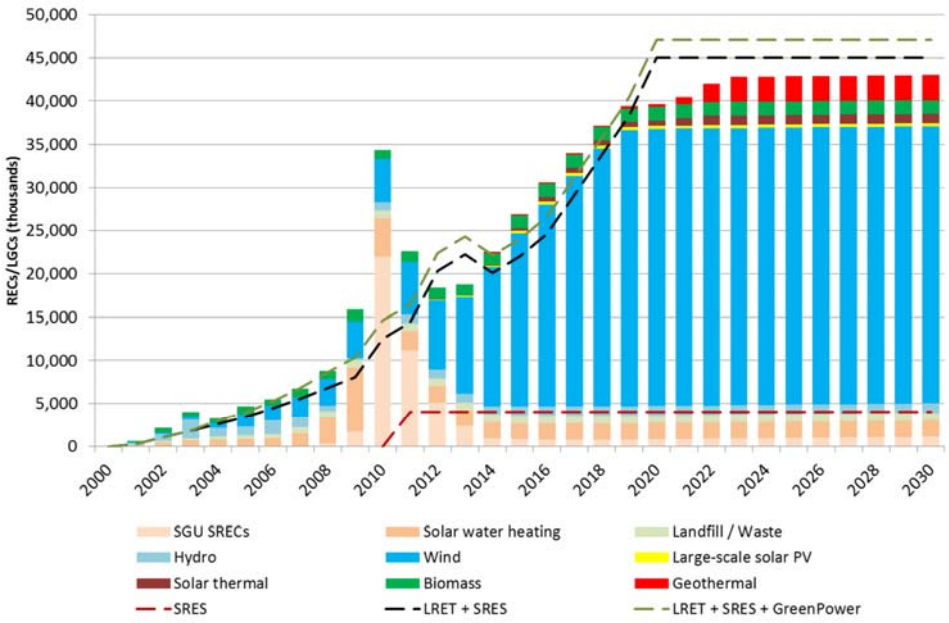

Figure 3: Renewable Energy planting to meet the RET [source: ROAM 2012]

This situation clearly creates a 'boom-bust' industry cycle and is disastrous for the longer term development of the Australian renewable energy industry. It is unacceptable for the deployment of renewable energy to be unnecessarily delayed and suspended; rapid deployment is necessary. The ROAM modelling included analysis of a hypothetical 30% RET out to 2030 (see Figure 1, page 4). This modelling demonstrates that this 2030 target prevents the "boom-bust" cycle, and allows for the continual, uninterrupted expansion and deployment of renewable energy.

[8] ROAM, "Solar Generation Australian Market Modelling."
[9] Ibid.

Page 25: 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?

As identified in the issues paper, the "20% Renewable Energy Target" is a policy commitment and a policy commitment only. The Renewable Energy Target, as exists in the Renewable Energy (Electricity) Act, has always referred to a gigawatt hour (GWhr) target. This GWhr target should not be reduced, as per the reasons identified in the Tambling Review: the gigawatt hour target is essential to provide certainty and drive investment.

It should be re-iterated that the '20% by 2020' policy commitment is entirely arbitrary. There are no technical grounds for limiting the deployment of renewable energy to 20%. It is entirely unreasonable to apply this percentage to electricity demand, as if it is a hard limit or technical constraint that must be adhered to. There is no 20% barrier and changing the target based on an arbitrary policy commitment will introduce unnecessary uncertainty, and will potentially decrease the amount of renewable energy deployed, in contradiction to the objective of the renewable energy target.

Page 25: What are the implications of changing the target in terms of economic efficiency, environmental effectiveness and equity?

The LRET scheme contributes insignificantly to the household electricity bill. According to the Australian Energy Market Commission (AEMC) the LRET scheme only contributes 0.51 cents per kilowatt hour out of the retail rate of 29.18 cents per kilowatt hour (1.7%). In contrast, the carbon pricing mechanism contributes between 1.6 and 2 cents[10]. Other analysis demonstrates that the average cost of the LRET on household bills is currently around $35, which will increase to $50-60 by 2020[11]. At the same time, wholesale cost paid by consumers is expect to increase from $350 at the beginning of 2012 to $600 in 2020 due to carbon price under a -5% carbon price trajectory.

This is a minor cost impact on consumers for a policy that is effectively deploying renewable energy generation, and developing an industry that is essential for decarbonising the economy and averting dangerous climate change. The cost and equity issues of expanding the RET are insignificant compared to the cost and equity issue surrounding dangerous climate change.

The deployment and development of renewables also has other positive benefits including increasing Australia's energy security (including as a hedge against volatile fossil fuel prices) and providing jobs. Large penetrations of renewables have also been shown to reduce wholesale

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[10] AEMC, "Possible Future Retail Electricity Price Movements: 1 July 2011 to 30 June 2014" (Australian Energy Market Commission, November 25, 2011), http://www.aemc.gov.au/market-reviews/completed/possible-future-retail-electricity-price-movements-1-july-2011-to-30-june-2014.html.

[11] ROAM, "Impact of Renewable Energy and Carbon Pricing Policies on Retail Electricity Prices" (Clean Energy Council, March 11, 2011), http://www.cleanenergycouncil.org.au/dms/cec/reports/2011/Impact-of-renewable-energy-and-carbon-pricing-policies-on-retail-electricity-prices/Impact%20of%20renewable%20energy%20and%20carbon%20pricing%20policies%20on%20retail%20electricity%20prices.pdf.

electricity prices, through the merit order effect[12] (whereby low marginal cost renewables displace higher marginal cost generators in the National Electricity Market, lowering spot prices), as noted in the issues paper. This effect has been seen in South Australia market with the deployment of wind energy[13]. Any consideration of costs of the LRET scheme must take this effect into account.

The Clean Energy Finance Corporation and the LRET

Page 26: 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?

Projects financed through the Clean Energy Finance Corporation (CEFC) must be additional to the RET. The RET should, at a minimum, be expanded to accommodate CEFC financed projects. This must occur for two related reasons:

Firstly, if the CEFC funded projects were eligible under the RET, they would distort the Large-scale Generation Certificate (LGC) market. The CEFC will allow projects that would otherwise be uncommercial to produce LGC's, (and thus increase the supply of LGC's), thereby distorting the certificate market; CEFC support could have substantial impact on LGC's prices. As noted in the Clean Energy Council's submission, this creates "uncertainty for investors of other least cost technologies that do not enjoy the support of the CEFC", particularly wind projects. The demand for wind projects would be eroded at the expense of CEFC funded projects[14].

The second related issue is that the demand for non-CEFC funded projects is effectively decreased, with no net increase in renewable energy deployed. The extent to which the CEFC can accelerate and increase the deployment of renewable energy projects is thereby compromised if it invests in projects that are also supported through RET. Without increasing the RET, the CEFC will result in:

- Distortion of the LGC market.
- Erosion of the wind generation market.
- *No additional* renewable generation, only change to the generation mix.

[12] Frank Sensfuß, Mario Ragwitz, and Massimo Genoese, "The Merit-order Effect: A Detailed Analysis of the Price Effect of Renewable Electricity Generation on Spot Market Prices in Germany," *Energy Policy* 36, no. 8 (August 2008): 3086–3094.
[13] Nicholas J. Cutler et al., "High Penetration Wind Generation Impacts on Spot Prices in the Australian National Electricity Market," *Energy Policy* 39, no. 10 (October 2011): 5939–5949.
[14] This would put the CEFC in contradiction with its stated intention to "not compete directly with the private sector in the provision of financing to [clean energy] businesses".

The Shortfall Charge

Page 27: Is the shortfall charge set at an appropriate level to ensure the 2020 target is met?

The shortfall charge provides an important function as a penalty for not covering LGC liability. As noted in the issues paper, with the current shortfall charge of $65/MWh ($92/MWh after tax), a situation can arise where *"liable parties may be better off paying the shortfall charge and not purchasing LGCs"*. This situation must be avoided. It could be possible for consumers to in effect pay for the RET (at this cap price), without the creation of more renewable energy and the associated benefits.

Of significance, this $65 charge is defined in nominal terms, which means the effective cap is reduced from $92 to $73 in 2020[15]. The LGC price could approach this cap price, for example, if wholesale prices are too low and/or the carbon price is too low or rescinded. As indicated in the issues paper, modeling by AEMO, Treasury and the AEMC illustrate that this outcome could eventuate. Specifically, low carbon price modelling by ROAM consulting suggests that[16]:

> *"In the absence of a carbon price, wholesale electricity prices remain low, and the shortfall charge reduces over time in real terms more rapidly than the long run marginal cost of wind farms is likely to decrease. This means that LGC prices reach the price cap and remain at the cap for the duration of the LRET. In this situation large-scale renewable generators cannot recover sufficient revenue to meet their long run marginal costs"*

And suggests that:

> *"In the scenario without a carbon price, an increase of the shortfall charge to $75 /MWh in real terms is likely to be necessary."*

As noted in the issues paper, "State and territory planning regulations may affect the level of renewable energy generation, its mix and the geographic distribution of renewable power stations". These planning regulations will act to further increase the cost of delivering wind projects, which will put further pressure on the LGC price and increase the chance of the cap price being met.

The RET scheme include a provision for the revision of the level of the shortfall charge. The shortfall charge should be increased to ensure that renewable generation is actually built (rather than the penalty paid), particularly given the uncertainty around the current carbon pricing policy, the recent changes to planning regulations and the need to increase the target substantially.

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[15] ROAM, "Impact of Renewable Energy and Carbon Pricing Policies on Retail Electricity Prices."
[16] Ibid.

Questions on Emissions Intensive Trade Exposed Industry Exemptions

Page 29: What are the costs and benefits of the current exemption arrangements? What, if any, changes to the current exemption arrangements should be made? What would be the impact of those changes on directly affected businesses and the broader community?

Emissions Intensive Trade Exposed (EITE) industries are exempt from LRET liability to varying degrees. Some industries (including but not limited to aluminum smelting) have 90% exemptions whilst others (including but not limited to iron and steel) are 60% exempt. The 90% exempt industries are estimated to be responsible for 14% of consumption, whilst the 60% exempt industries are estimated to be responsible for 9% of consumption[17].

Whilst the RET does not currently contribute much to household electricity bills, households should not continue to subsidise EITE industries as the deployment of renewable energy increases. As renewable penetration increases, and Australia moves to the necessary 100% zero carbon grid, it is clearly untenable that industry does not pay for the renewable energy (and the benefits it delivers). The current EITE industries' exemption arrangement serves only to increase the cost placed on consumers by the RET.

Large scale industrial users that tend to buy power directly through the market (rather than through retailers) are better placed to directly benefit from the price reduction brought about by renewables through the Merit Order Effect. EITE industries cannot continue to avoid paying for renewables though liability exemptions, whilst continuing to receive lower wholesale electricity prices from the same renewables.

Waste Coal Gas

Page 31: Should waste coal mine gas be included in the RET? Should new capacity of waste coal mine gas be included in the RET?

Waste coal gas should never have been included in the renewable energy target scheme. There should unequivocally be no further allowances for waste coal gas. Waste coal gas does not contribute to the target's objective of renewable energy deployment, and should cease being an 'eligible source' immediately, making way for more renewable generation.

[17] Ibid.

The Small-scale Renewable Energy Scheme

Page 33: Should there continue to be a separate scheme for small-scale technologies? What are the cost and benefits of having a separate scheme for small-scale technologies?

The large-scale renewable energy scheme is a market based mechanism that aims to support renewable energy projects at lowest cost. As mentioned, most modelling suggests that the LRET will be predominantly achieved with wind, and the LGC price is likely to be set by the price of wind[18]. Whilst this scheme delivers renewable energy at low cost, it only deploys one type (the cheapest, in this case wind).

A suite of technologies are required to meet the clean energy challenge. As reported by the Grattan Institute, failure to develop a suite of low-emissions technology options is likely to produce far higher costs in the long run[19]. The large scale scheme does not currently encourage a diversity of technology options, and thus it is essential that there remains a separate scheme for small-scale technologies. The small-scale scheme allows the development and deployment of important technologies that make the necessary deep cuts in emission required to meet the drastic emissions reductions required. Developing these options today will results in lower costs in the long run.

Similar to the LRET scheme, the SRES scheme is a minor cost to end use consumers. According to analysis by ROAM, the SRES contributes between 0.42 and 0.64 cents per kWh to the typical total electricity tariff[20] ($31-$47 per household per annum). The cost of the SRES scheme is also expected to decline over the next decade, as the solar multiplier decreases. By 2020, the cost of the SRES is estimated to be $5 - $19 per annum per household[21].

The deployment of rooftop solar (and other small-scale technologies), induces the merit order effect, similar to the large scale scheme. Modelling and analysis by the Melbourne Energy Institute suggests that deployment of rooftop solar in the National Electricity Market lowers wholesale electricity spot prices through this effect. Thus the overall cost of the scheme is overstated, as this affect is not taken into account. It has been shown that support mechanism can actually deliver net savings to consumers through this merit order effect[22].

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[18] ROAM, "Solar Generation Australian Market Modelling."
[19] A Wood and D Mullerworth, "Building the Bridge: A Practical Plan for a Low-cost, Low-emissions Energy Future" (Grattan Institute, 2012), http://grattan.edu.au/static/files/assets/a8778779/Building_the_bridge_report.pdf.
[20] ROAM, "Impact of Renewable Energy and Carbon Pricing Policies on Retail Electricity Prices."
[21] Ibid.
[22] Sensfuß, Ragwitz, and Genoese, "The Merit-order Effect."

Page 34: Is the SRES driving investment in small scale renewable technologies?

The SRES scheme has been an important contributor to the investment and deployment of small-scale scale renewable energy technologies. However, it is important to note that feed-in tariffs have played a crucial and more influential role in the deployment of rooftop solar in Australian and indeed globally, see Figure 4 below. The state-based feed-in tariffs have been significantly reduced (or removed entirely) across the country and as such, the SRES scheme remains an important scheme in driving the deployment of small scale renewables.

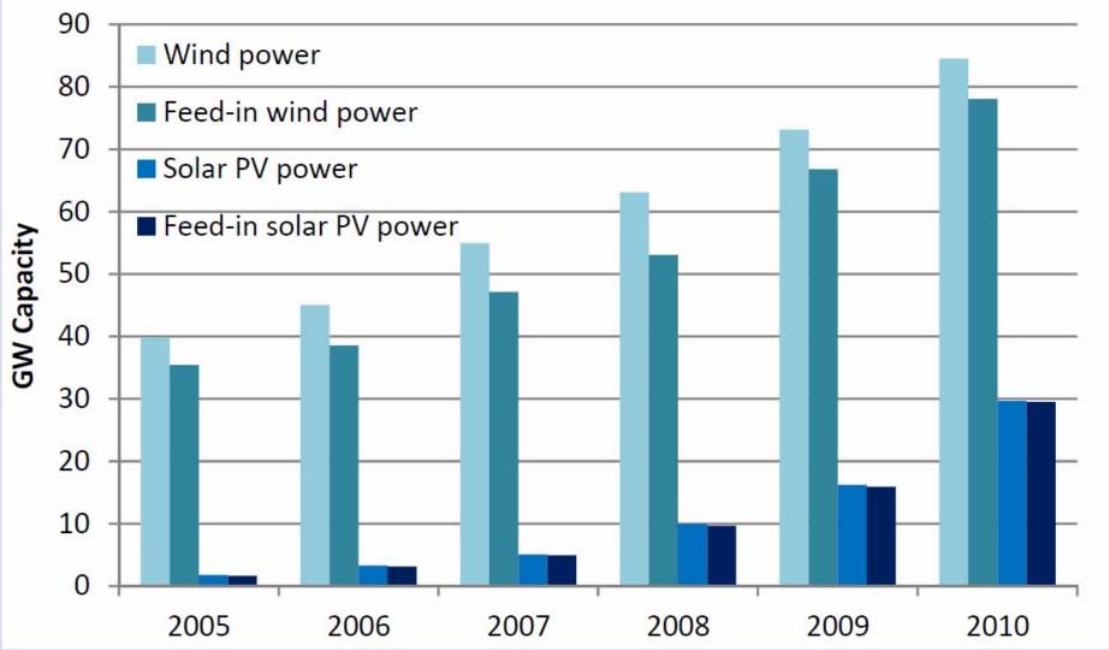

Figure 4: Installed renewable energy capacity supported by feed-in instruments in the EU-27 countries[23]

Page 34: Is the uncapped nature of the SRES appropriate?

It is important that the SRES scheme remains uncapped. The uncapped nature of the scheme ensures that there is equal access to scheme (late adopters of small scale-renewable energy systems are not excluded). Importantly, the uncapped scheme allows the deployment of small scale systems above and beyond the original RET target of 45,000 GWh. This is necessary to develop the suite of technologies (as argued above), and support the continued deployment of small-scale renewables to achieve the deep emissions cuts required.

[23] Data from Ragwitz, M., Winkler, J., Klessmann, C., Gephart, M. and Resch, G., "Renewable energy deployment supported primarily by feed-in instruments, EU-27 countries", (2012) http://www.feed-in-cooperation.org/wDefault_7/download-files/9th-workshop/presentations/Ragwitz.pdf .

Page 39: Is the STC Clearing House an effective and efficient mechanism to support the operation of the SRES? Should changes be made to the Clearing House arrangements? If so, what would be the costs and benefits of any suggested alternative approaches? Is $40 an appropriate cap for small-scale certificates given the recent fall in cost of some small-scale technologies, particularly solar PV?

The role of the clearing house is to provide a set subsidy for small-scale technologies. To date, as noted in the issues paper, it has not guaranteed any particular level of subsidy for small-scale technologies. This has failed to eventuate due to the inability to accurately forecast STC liabilities.

The STC liability is set annually and determined by a forecast of the number of STC's to be created in a year. As presented in the issues paper, there has been annual oversupply of the STC's since the inception of the scheme. This has resulted in the STC price ($25-$30) being well below the clearing house price ($40). The price disparity (and consequently the failure to provide a set subsidy) results from this inability to create accurate annual forecasts. Should the forecast actually reflect the production of STC's, the market price of STC's should converge closer to the clearing house price, and the clearing house would be playing a more effective role in supporting the operation of the SRES. Unless the forecasts are improved (to address the artificially create supply and demand imbalance), the STC market should be subsumed by the Clearing House, to provide set and more certain support to small scale-renewables. If the market were functioning properly, this outcome would be achieved.

As noted, a feed-in tariff is a superior mechanism to compensate small generators for the amount of energy they produce. Feed-in tariffs have delivered the vast majority of wind energy, and essentially all solar PV energy in the European Union (Figure 4). It has been suggested that the upfront subsidy that the SRES scheme provides is more beneficial to renewable technologies with typically high upfront capital costs. Recent cost reductions with solar PV mean that the upfront subsidy is not as important. However, whilst state-based feed-in tariffs are being wound back, and until a national feed-in tariff is implemented, the current SRES scheme must continue to support small scale renewables, by providing the set subsidy.

Diversity of Renewable Energy Access

Page 45: 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?

As previously argued, there are long-run benefits in developing a suite of technologies to make deep cuts to emissions and decarbonise the Australian economy. To re-iterate, failure to develop a suite of low-emissions technology options is likely to produce far higher costs in the long run[24].

The single most significant barrier to uptake of other types of renewable energy technologies in the RET scheme is the cost differences. The RET aims to deploy renewable technologies at lowest cost through a market mechanism. By definition, the lowest cost technologies will be deployed, in direct contrast to the need to develop a suite of technologies. Due to this market focused, least-cost design, the RET cannot address the barrier of cost difference between technologies.

An additional banded RET could address this barrier. A banded RET, able to support multiple technologies with different costs concurrently, is similar to the SRES and LRET schemes. Any banded RET would have to be additional to current target, to ensure that more renewable energy is generated, a variety of technologies are supported, and wind (or other technologies that would otherwise be built) are not disadvantaged or cannibalized by the new technologies.

Alternative mechanisms, such as Feed-in Tariffs, are ideally suited to deploying a range of technologies. However, as with the CEFC, any other means used to address this barrier must be additional to the RET, for the same reasons as mentioned above, to ensure that more renewable energy is generated, and existing technologies are not disadvantaged or cannibalised by the mechanism.

[24] Wood and Mullerworth, "Building the Bridge: A Practical Plan for a Low-cost, Low-emissions Energy Future."

Questions on Review Frequency

Page 46: What is the appropriate frequency for reviews of the RET? What should future review focus on?

Beyond Zero Emissions supports a two year review frequency. This is essential given the increasing urgency of addressing the climate change emergency.

Future reviews should be limited to only discussing increasing the target, (e.g. in line with global developments, technology developments, and cost reductions). This would allow the scheme to be flexible enough to respond commensuratly to the increasingly urgent climate change challenge. It also prevents the uncertainty created by suggestions of possible decreases to the target.