



Review of the Renewable Energy Target

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Submission to:

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These comments are presented by the Chief Executive Officer, Geoff Penton, on behalf of the Queensland Murray-Darling Committee Inc. (QMDC). QMDC is a regional natural resource management (NRM) group that supports communities in the Queensland Murray-Darling Basin (QMDB) to sustainably manage their natural resources.

1.0 Background

QMDC's activities are guided by the Regional Natural Resource Management Plan (the Plan), which sets community and government agreed targets and actions plans for the protection and enhancement of the natural assets across our region. This Plan has an “Energy and Waste” section focusing on progressing a regional approach to energy efficiency, demand and supply management, and the reduction and mitigation of greenhouse gas emissions.

In order to implement the Plan, QMDC has invested in a full-time Regional Climate Change Project Officer since May 2008 and 2 full time Energy Efficiency Technical Officers since 2012. Through these roles QMDC has successfully established networks across the QMDB to improve the capacity of land managers in the region to develop energy efficient practices whilst also managing climate change risks and greenhouse gas emissions. The provision of technical advice has helped to improve not only local businesses, it has also endeavoured to facilitate a wider regional resilience to climate and carbon market risks and challenges related to energy demand and supply.

QMDC and the communities it represents are therefore keen to see the continued implementation of a national Renewable Energy Target (RET) alongside the development of a Regional Renewable Energy Strategy as key NRM actions with regards to the provision of electricity in the QMDB.

RET Review

Comments



2.0 General comments

QMDC supports the need to address the immediate and future challenges of the energy sector. The importance of Renewable Energy Sourced electricity (RES) and energy efficiency and conservation, demands that it be given fiscal priority by the Australian and state governments.

QMDC supports a more active approach for RES. Many sovereign states and regions around the world are supporting higher levels of renewables in the electricity and other energy sectors. Australia has a great economic opportunity. NSW state funding to community groups to install community owned renewable energy (CORE) projects¹, will have knock-on positive impacts for the local economy. Community owned models have a greater and more equitable economic impact than other ownership models^{2,3,4,5}. Australian Government funding could do the same by offering streamlined funding to NRM organisations and other appropriate groups with the aim of sharing project outcomes (e.g. developing models of corporate structures relevant to this sub-sector). Several other local, regional and national governments support the community owned renewable energy sector in their countries, such as the UK, Ireland, US and Germany (where over 50% of the renewable energy is owned under community ownership models) and Denmark.

The RET also provides investment security for the industry. We are already seeing investors pull out of the industry due to changing policies.

3.0 Specific comments

3.1 The objectives and outcomes of the RET

The objects of the *Renewable Energy (Electricity) Act 2000* are:

- to encourage the additional generation of electricity from renewable sources;
- to reduce emissions of greenhouse gases in the electricity sector; and
- to ensure that renewable energy sources are ecologically sustainable.

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

¹ <http://www.environment.nsw.gov.au/climateChange/comrenewpros.htm> (Retrieved 29/05/13)

² http://www.communitypowernetwork.com/sites/default/files/CommWind_101_for_Policymakers%20copy.pdf (Retrieved 2/5/14)

³ Lantz, E. & Tegen, S., 2009. Economic Development Impacts of Community Wind Projects: A Review and Empirical Evaluation. In Windpower 2009. Chicago: National Renewable Energy Laboratory.

http://www.communitypowernetwork.com/sites/default/files/CommWind_101_for_Policymakers%20copy.pdf (Retrieved 2/5/14)

⁴ http://www.cleanenergyresourceteams.org/files/WindOwnershipMinnesota_ArneKildegaard_July2010.pdf

http://www.communitypowernetwork.com/sites/default/files/CommWind_101_for_Policymakers%20copy.pdf (Retrieved 2/5/14)

⁵ Kildegaard, A., 2010. Ownership and Regional Economic Impact: The Case of Wind Development in Minnesota. *Bremer Foundation and West Central Minnesota Sustainable Development Partnership*,

http://www.cleanenergyresourceteams.org/files/WindOwnershipMinnesota_ArneKildegaard_July2010.pdf

http://www.communitypowernetwork.com/sites/default/files/CommWind_101_for_Policymakers%20copy.pdf (Retrieved 2/5/14)

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The RET has performed well against the objectives of the REE. It has driven \$18 billion investment in renewable energy and reduced emissions by more than 20 million tonnes⁶.

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

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?

QMDC takes its starting point as the scientific need to reduce emissions, and not what is politically feasible. Australia needs to get to 100% Renewable energy as quickly as technically feasible⁷. Through the higher than expected uptake of renewable through the RET, the Australian public and the industry has demonstrated what is possible and as such, the target should be strengthened.

3.2 Impacts of the RET

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

The RET has had a clear impact in developing the industry. The most recent administrative report states that⁸:

- 26 renewable energy power stations were accredited in 2013, bringing the total number accredited renewable energy power stations to 394.
- 238,769 small-scale renewable energy system installations were validated by the Clean Energy Regulator in 2013. This saw the total number of small-scale systems installed under the Renewable Energy Target exceed two million.
- 90 liable entities in 2013, who achieved 99.97% small-scale technology certificate compliance and 99.98% large-scale generation certificate compliance.
- more than 20.4 million (20,457,324) small-scale technology certificates and more than 14.6 million (14,649,036) large-scale generation certificates were validly created in 2013.

Should the LRET be abolished, reduced or increased? If retained, what level should it be?

QMDC supports increasing the RET to 40% by 2020. Australia has excellent renewable energy resources. In fact, ARENA in its 2013 Australian Energy Resource Assessment has found that "Australia has some of the world's best wind resources⁹" and "Australia has the highest average solar radiation per square metre of any continent in the world"¹⁰. The amount of the Sun's energy falling on Australia in one day is equal to half the total annual energy required by the whole world¹¹.

⁶ Climate Change Authority (CCA), 2012. Renewable Energy Target Review Final Report. CCA, Melbourne.

⁷ <http://www.ies.unsw.edu.au/our-research/simulation-modeling-100-renewable-energy-australian-national-electricity-market>

⁸ <http://www.businessspectator.com.au/news/2014/5/1/renewable-energy/near-perfect-compliance-renewables-target-2013> (accessed 5/5/14)

⁹ <http://arena.gov.au/files/2013/08/Chapter-9-Wind-Energy.pdf> (accessed 5/5/14)

¹⁰ <http://arena.gov.au/files/2013/08/Chapter-10-Solar-Energy.pdf> (accessed 5/5/14)

¹¹ Australian Academy of Science, *Australia's renewable energy future*, December 2009.

Not increasing the target (and therefore the penetration of renewable energy) has the risk of Australian economy being too dependent on “unburnable carbon”.

If the RET is abolished, QMDC supports retaining support for existing projects. The chair of the panel, Dick Warburton, has stated “that there will not necessarily be a grandfathering of existing arrangements”¹². This will affect the business case of existing projects, decisions of which were made in good faith and leaving some assets stranded. This will send a negative message about doing business in Australia.

What would the impact of such changes be?

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

Should the LRET and SRES schemes be recombined?

No. The original MRET was ineffective as small installations and solar hot water absorbed most of the certificates. Retaining the differential target and scheme ensures that the objective “to encourage the additional generation of electricity from renewable sources” does in fact occur.

What impact is the RET having on electricity markets and energy markets more broadly?

Obvious impacts include: confidence in renewable energy investment and innovation; a reduction in energy demand (solar owners have demonstrated reduction in electricity use); It has also been demonstrated the renewable energy sources have the capacity to provide base load power through its distribution^{13,14} (baseload power has in fact been demonstrated to be a myth^{15,16,17} and is only a product of the current electricity system).

CSIRO suggests that the cost of solar thermal will halve, reaching 12c/kWh by 2020, while the costs of solar and other RES technologies are coming down.

<https://theconversation.com/solar-thermal-energy-cost-expected-to-halve-csiro-11956>

This was one of the reasons cited for removing the feed in tariff in NSW, Queensland and WA.

Technologies such as solar thermal (e.g. towers) also have the ability to provide base load power (which may not be needed in 2030 with some technological advances).

<http://share.pdfonline.com/18925704eff04d599a395afc1d9dc2f4/Advances%20in%20solar%20thermal%20power%20plants.htm>

http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/rp0809/09rp09

¹² <http://www.businessspectator.com.au/article/2014/4/30/renewable-energy/warburton-ret-could-go-and-existing-renewables-investments> (accessed 5/5/14).

¹³ <http://theconversation.com/renewable-energy-can-provide-baseload-power-heres-how-2221>

¹⁴ <http://www.abc.net.au/science/articles/2010/12/02/3081889.htm>

¹⁵ <http://bze.org.au/zero-carbon-australia/stationary-energy-plan>

¹⁶ <http://www.abc.net.au/science/articles/2010/12/02/3081889.htm>

¹⁷ <http://www.energyscience.org.au/BP16%20BaseLoad.pdf>

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The Expert Panel call for submissions document discusses the impact of the RET on markets. It is clear that distributed generation is reducing the costs for all users, especially with new models of grid interaction, such as minigrids. When asked if such impacts are being modelled, the expert panel said it is too hard to model and that such benefits are wealth transfer¹⁸. This is no different to the cross subsidy of supporting EITE and other fossil fuel industries. QMDC strongly feels that the expert panel is performing a community disservice. Such benefits are in fact the stated aim of the terms of reference scope for this review.

QMDC also notes (as does the government) that current law requires a review this year, but that current law requires that review to be conducted by the Climate Change Authority (s.162 Renewable Energy (Electricity) Act 2000). This would have resulted in a more objective and trusted review process and outcome. Other benefits such as health benefits and jobs should also have been assessed under this review.

How might this change over time?

QMDC supports a strong customer engagement strategy to address changes over time. The energy sector requires a well thought out strategy that includes education and awareness-raising to specify on what efficiency and renewable options would be best, and not just how to pick the best tariff for your house. Industry direction is also needed.

Currently solar panel owners are being discriminated against because they are reducing the load on the grid, yet they are reducing costs for everyone through the merit order impact and by reducing emissions. Options for variable charging (e.g. block tariffs) for high end users would be a more equitable option to introduce. This would also be more effective in future peak load demand management and energy efficiency.

QMDC supports the use of the collaboration and empowerment models of the International Association for Public Participation (IAP2) public participation spectrum¹⁹. The Victorian Government has some great examples and tools²⁰ e.g. community profiling, interactive video display kiosks, field trips etc on how to achieve this, as does the Queensland Government²¹.

As such, QMDC would like to see the economic, social and environmental impacts of end-user decisions, such as peak load and climate change, addressed more holistically. For every \$1,500 air-conditioner added to the system, \$7,500 dollars is added to network costs, raising the costs for all grid users.

Refer page XIV of the Energy white paper:

http://www.ret.gov.au/energy/Documents/ewp/2012/Energy_%20White_Paper_2012.pdf

http://www.esaa.com.au/Library/PageContentFiles/37cd5390-c7ee-4693-9ba0-21c958293d85/The_real_cost_of_air_conditioners_17_Dec_2012.pdf

¹⁸ <http://www.energybusinessnews.com.au/business/regulation-policy/solar-council-blasts-ret-review-panel/>

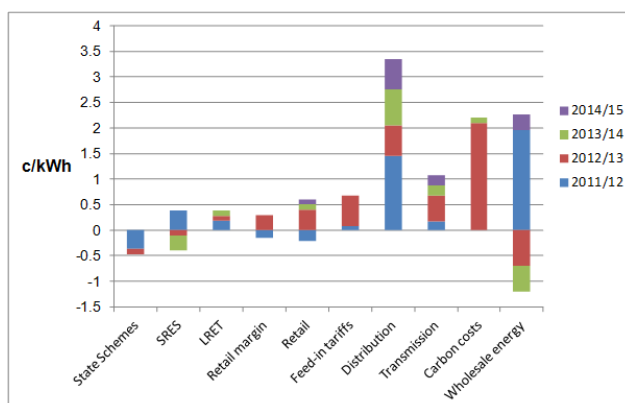
¹⁹ <http://www.iap2.org.au/resources/iap2s-public-participation-spectrum> (Retrieved 29/11/13)

²⁰ <http://www.dse.vic.gov.au/effective-engagement> (Retrieved 29/11/13)

²¹ <http://www.qld.gov.au/web/community-engagement/guides-factsheets/methods-techniques/> (Retrieved 29/11/13)

The engagement strategy should fully inform consumers of the relative costs of green programs, such as the Renewable Energy Target and Feed in Tariffs, in comparison to that of network charges and current billing regimes, where many users are subsidising customers contributing to peak loads. While there is a premium for green programs, long term costs of climate change will be avoided.

QMDC does not support the claim that the extra costs of green programs are a reason for rising power costs. Instead, it has clearly been demonstrated to be due to peak load and unsustainable use of infrastructure^{22,23,24,25,26,27}, with the RET only contributing 4% to bills²⁸. The following figure gives a clearer breakdown of these relative contributions, and demonstrates that the RET makes a small contribution²⁹.



QMDC asserts that customers should be engaged in a manner that not only reduces the costs of efficiency and conservation, other tariffs and purchasing government accredited green power, but clarifies their relative contribution. Consumers should also be told the truth about the cost contributions to electricity. No Australian should still believe that the RET and other green packages make a significant contribution to at socket costs and price rises. Through poor engagement, many customers do not understand that the (over 140) parallel programs of the Clean Energy Package (funded by the carbon price that is likely to be dismantled) are where the environmental gains occur and are left feeling the carbon price does not work. Furthermore, in Australia, fossil fuels are also subsidised to the tune of A\$3.6B, while for renewables it is A\$1.4B³⁰ not a level playing field in an aspiring competitive market.

QMDC supports strong links to a strong demand management and energy efficiency strategy. It has been demonstrated that the Australian economy can become 100% RES. While there is clearly some debate around the costs and how to achieve this, QMDC supports greater engagement in growing the renewable energy industry, and supporting it though an effective engagement strategy.

²² Department of Energy and Water Supply, Qld Government The 30-year electricity strategy: Directions paper, 2012

²³ <http://www.businessspectator.com.au/article/2013/3/25/energy-markets/power-price-reality-check>

²⁴ <http://www.aemc.gov.au/getattachment/1ddd4af4-04e9-4d18-a678-bc903f6d4cbf/Final-Report.aspx>

²⁵ http://www.energymatters.com.au/index.php?main_page=news_article&article_id=3856

²⁶ http://www.energymatters.com.au/index.php?main_page=news_article&article_id=3449

²⁷ http://www.energymatters.com.au/index.php?main_page=news_article&article_id=3437

²⁸ Australian Energy Market Commission, 2013. Residential Electricity Price Trends Final Report. AEMC, Sydney.

²⁹ <http://www.businessspectator.com.au/article/2013/3/25/energy-markets/power-price-reality-check> (accessed 5/5/14)

³⁰ <http://cpd.org.au/2013/04/going-solar/> (Retrieved 29/11/13)

Price signals alone have been shown to be ineffective at changing behaviours. The engagement strategy should look at other options to reduce the use of air conditioners and other high demand uses. Australia has gone from 20% in 1975 to over 70% of air conditioner ownership³¹. Ergon Energy suggests these contribute 57% to peak load³². The engagement strategy should look at passive design options, behaviour change and load shifting.

An effective engagement strategy will allow customers to compare accredited GreenPower providers, potentially on the Energy Made Easy website, a comparison which is currently unavailable to Queensland customers. www.energymadeeasy.gov.au/

Are the current exemption arrangements appropriate?

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

3.3 The RET and other policies

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?

3.4 Reducing the administrative burden of the RET

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?

3.5 Eligibility of technologies

Should any other energy sources be included in the LRET?

QMDC supports the RET facilitating the deployment of cost effective existing and new generation technologies. A focus, however, should be on renewable energy sources, with a distinction from low emission technologies. For example, there is still debate regarding how low the emissions from mining coal seam gas are, when fugitive emissions are taken into account. www.abc.net.au/environment/articles/2012/11/27/3639625.htm Preference should also be given to renewables over carbon capture technologies and more efficient fossil fuel power stations.

³¹ http://ee.ret.gov.au/sites/default/files/documents/04_2013/energy-use-australian-residential-sector-1986-2020-part2.pdf (Retrieved 29/11/13)

³² https://www.ergon.com.au/_data/assets/pdf_file/0004/167755/Ergon-Energy-DM-Plan-2013_Final-Web.pdf (Retrieved 29/11/13)

The RET must also address the potential cumulative impacts coal and coal seam gas development and associated electricity network and retailer operations will have on a region and specific sites as a whole. These could be, for example, the impacts on the ephemeral nature of relevant watercourses, the quality and quantity of groundwater, the ongoing fragmentation caused by the development on the terrestrial ecosystems, residual risks from gas and water treatment by-products, accelerated consumption of a finite non-renewable resource etc. and the social, economic and environmental stresses caused by the construction and operation of associated infrastructure. It must also address the impacts caused by the whole of the energy industry on the Great Artesian Basin, on the total air quality of the region, on the soils of the region and so forth.

Regionally specific generation options may be accessible with careful engineering to combine technologies and provide off-grid options for whole communities that could provide energy and other resources. For example, linking geothermal energy with solar thermal energy as water supplies are reticulated for domestic purposes. Encouraging unique combinations of energy generation technologies which independently aren't sufficient but combined, are a renewable solution.

Should any non-renewable (but low emissions) energy sources be included?

QMDC feels strongly that only renewable energy should be included in the RET. The science is very clear that we need to not only reduce our emissions, but in fact draw carbon down from the atmosphere to avoid tipping points^{33,34,35}. Other low emissions technologies can already access support. Australia is also in a strong position to transfer to a renewable based economy. As such, there is no conceivable reason to support 'low emissions' non-renewable technologies.

The fundamental challenge confronting the Government is that in the absence of credible climate change policy, national emissions are projected to grow by 30 per cent by 2030.

The Climate Institute asserts that in order for Australia's clean energy investments to reach levels consistent with avoiding very serious climate impacts, then total emission reductions to 2030 need to be around five billion tonnes. This, the Climate Institute states, is equivalent to eight years of annual emissions at current rates.

<http://climateinstitute.org.au/articles/media-releases/emissions-reduction-fund-no-guarantee-of-emissions-reductions.html>

The Climate Institute do not believe taxpayer funds of \$1.55 billion over the next few years, and potentially another \$1 billion in the future, have the capacity to deliver on emission reductions, particularly given the tight budget situation. The Climate Institute asserts, the Government would need to be spending \$3-\$5 billion every year by the end of the next decade to achieve credible emission reduction goals, with the long term costs to the economy more severely impacting on future generations, more expensive than if we addressed them today. <http://climateinstitute.org.au/articles/media-releases/emissions-reduction-fund-no-guarantee-of-emissions-reductions.html>

³³ Hansen J. et al., 2008, 'Target Atmospheric CO2: Where Should Humanity Aim?', Columbia University, http://www.columbia.edu/~jeh1/2008/TargetCO2_20080407.pdf

³⁴ Lenton T. M. et al., 2008, 'Tipping elements in the Earth's climate system', www.pnas.org/content/105/6/1786.full.pdf+html

³⁵ http://www.climateinstitute.org.au/verve/resources/MovingBelowZero_SpotlightReport_April2014.pdf (accessed 5/5/14)



In the absence of binding pollution limits, the Government will need to strengthen the existing Renewable Energy Target and follow international trends subjecting industries to new regulatory standards. The USA, China, the European Union and other major economies are already executing carbon pricing, regulations and renewable energy incentives alongside plans for steep emission controls beyond 2020. The effectiveness of such regulation is dependent on the investment made through institutions, compliance, monitoring and penalties applied which need to be considered in the cost/benefit analysis for policy comparison.

Should any new small-scale generation technologies be eligible under the SRES?

Mini grids and the use of solar and storage for carbon reduction, peak demand management and energy efficiency is a rapidly advancing area. Local grids already exist in Australia. This concept (known as Virtual Network metering (VNM)) is being trialled by Newcastle Council and CSIRO³⁶. The Australian Government should immediately look at options, especially in regional areas where Single Wire Earth Return (SWER) lines cannot keep up with demand and repairs, maintenance and replacing distribution infrastructure is expensive. Ergon Energy already sees the opportunity here. In terms of using these technologies, the International Energy Agency has started looking at options³⁷. The Queensland University of Technology is also investigating options.

Should any new displacement technologies be eligible under the SRES?

3.6 Frequency of reviews

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

QMDC is concerned that the review is ignoring its legal requirements in accordance with s.162 of the *Renewable Energy (Electricity) Act 2000*, namely that the body to conduct the review is the independent Climate Change Authority.

3.7 Native forest wood waste

What administrative and regulatory arrangements should be put in place to ensure that the reinstatement of native forest wood waste is consistent with the sustainable management of native forests?

The use of native forest wood waste for energy should be cost neutral/cost recovery only, otherwise there is the potential to incentivise the increase use of this non-renewable resource. For certified sustainable plantation feedstock this should not be the case.

³⁶ <http://solar.org.au/papers/12papers/PV13Ward.pdf> and <http://www.csiro.au/Outcomes/Energy/Smart-grid-smart-city.aspx> (Retrieved 19/11/13)

³⁷ <http://www.iea.org/publications/freepublications/publication/name,3871,en.html> (Retrieved 29/11/13)