

April 2014

Prepared by:
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Prepared for:
ET Review Panel

RET Review; *Modelling Assumptions Submission*



Introduction

Dear Sir/Madam

Thank you for the opportunity to comment on the Consultation Paper on the Proposed Approach to Key Modelling Assumptions for the 2014 Review of the Renewable Energy Target (RET).

SolarBusinessServices is a PV research and consultancy business with 21 years' experience in the PV industry in Australia. The company is arguably Australia's longest established business development specialist focused purely on the solar PV industry. After more almost two decades working for other solar companies Director Nigel Morris, established SolarBusinessServices in 2009.

SolarBusinessServices was founded with a mission to help companies navigate and prosper in the Australian solar market through the provision of unique and world class intelligence reports including our annual five year Market Forecast report, Industry Channels Intelligence report and PV Technology and Brands report.

We support and advise businesses including manufacturers, financiers, investors, insurers, wholesalers, retailers, installers, industry associations, utilities, energy regulators and Government, and provide pro-bono advice to solar consumers. Our work across the entire value chain provides unequalled insights into every aspect of the PV industry in Australia.

SolarBusinessServices are winners of the Australian Solar Council 2011 Industry advocacy and Leadership Awards and were finalists in the 2013 Clean Energy Council annual Clean Energy Media Awards and the 2012 Australian Alliance to Save Energy's annual All Star Awards.

Context

Under the Renewable Energy (Electricity) Act 2000 [the Act], there is a statutory obligation to review the Renewable Energy Target every two years, including 2014. The Climate Change Authority (CCA) has a statutory obligation to review the RET, and we believe the CCA should manage the 2014 RET Review and the modelling exercise as required by law.

The RET was last reviewed in 2012, with a final report in December 2012, just 16 months ago. SKM MMA undertook extensive modelling for the 2012 RET Review, and that work should be the basis for the modelling assumptions for the 2014 Review.

It is important to note the RET Review cannot make any recommendations that are inconsistent with the objects of the Act (s162 (11) of the Act). The modelling assumptions should reflect this fact.

The objects of the Act are:

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

Electricity demand

Electricity demand forecasts have changed dramatically in recent years. We urge the panel to ensure that demand modelling is used which takes into account a more dramatic change forecast than was previously expected. Consumer behaviour is shifting dramatically, privatisation potential makes daily news and the dynamics of the electricity industry are shifting rapidly. Using historic modelling assumptions will undoubtedly omit the potential for dramatic change that now appears highly likely based on rapidly changing technology costs and consumer behaviour.

In particular, the rapidly expanding use of highly distributed energy sources is changing consumer expectations on energy and the time and way they use energy. Only last week, we were shown data from Energex demonstrating how for example, consumers are dynamically and rapidly changing their demand behaviour to suit changing Feed In Tariff's. Their behaviour continues to evolve and is far from static and we expect similar trends to emerge in other states as Feed In Tariffs and other market drivers influence granular behaviour.

By the end of 2014, we expect almost 4GW of small scale distributed PV to be connected in Australia which represents almost 9% of National capacity. This has the potential to result in material implications on demand and generation requirements and requires an all new and more extreme set of scenario's to be considered, than was previously the case.

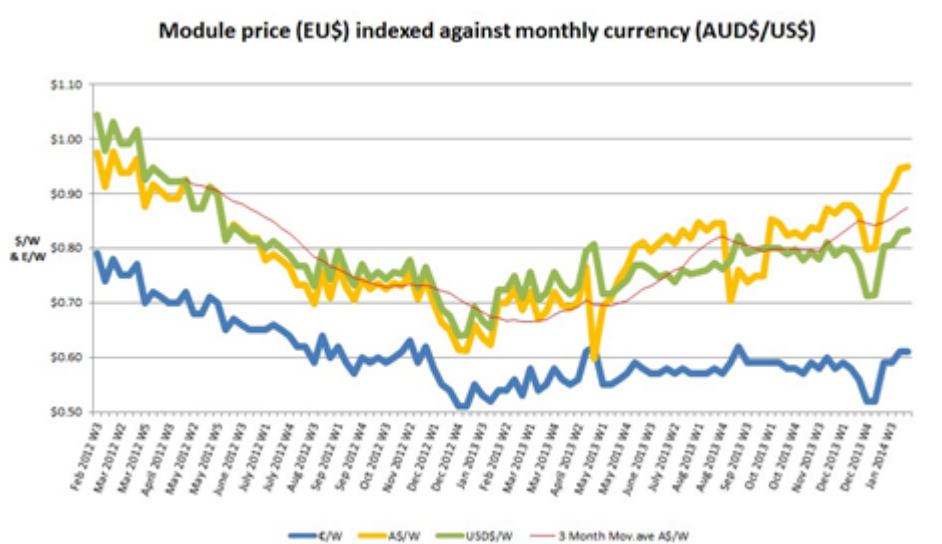
Electricity generation technology costs

We acknowledge that the Australian Energy Technology Assessment (AETA) published by BREE in 2013 is a primary source of data. However, we no longer consider them entirely relevant due to the fact that technology costs are changing so rapidly. Last week we were advised by one major manufacturer that the changing dynamics in China have caused a recent adjustment to their predictions of costs in the medium term.

A secondary issue is that they primarily consider large scale generation costs and LCOE in defiance of the fact that the vast majority of PV is installed in micro scale distributed generation in Australia, due to prevailing policies. The relative cost and value of PV generated electricity need to be taken in context.

A third crucial issue is the hyper dynamic import pricing environment. Foreign exchange, market forces, competition, technological evolution and the global supply demand ratio have historically demonstrated that PV prices can rise and fall by as much as 60% in less than six months. This requires a far more dynamic and robust analysis than a simple snapshot in time of average market pricing to be anywhere close to meaningful, if it is to be used as a justification for adjustments to support polices. There is a desperate need for an intelligent and robust model which increases and decreases support commensurate with changing market forces.

For example, in the last 6 months, local PV import prices have been steadily increasing due to foreign exchange and global wafer prices have only just stabilised after also increasing, but are forecast to increase in the second quarter of 2014. A sample of our data is provided in the graph below.



Yet another potential example of the current PV Anti Dumping case before the Australian Government. The outcomes of this case of successful, could result in tariff structures that dramatically increase the price of imported PV, if international examples are anything to go by.

Fourthly, recent work in the USA highlights that the full cost benefits of PV can be calculated which has not previously been done in Australia. The Minnesota Public Utilities Commission has adopted a new methodology for taking into account the full social and network values of PV noting that previous simplistic models were “outdated and no longer scientifically defensible”. In the context of significant evolution of the electricity industry’s traditional models, we urge the panel to consider more robust models such as this one and in doing so provide a pathway to the redevelopment of the electricity industry.

Lastly, it is patently clear that energy costs are neither static nor are they consistent across distribution and transmission networks. Western Australia’s Horizon Energy and the Hawaiian Electric Company have addressed this issue by transparently publishing hosting capacity limits and applying higher or lower values for PV energy in granular detail. This highlights the fact that PV (or other distributed energy) has significantly higher value in some locations that the market is willing to pay for in some cases, which is ignored in a crude average value.

This issue also highlights that the implementation of vastly more sophisticated data is urgently required in Australian networks, if network companies are to be believed. They claim that they have insufficient data collection in many cases and thus don’t really know the value (or otherwise) of micro distributed energy, belying its potential value.

Climate

We urge the panel to take into account the latest robust data on climate science that overwhelmingly concludes that the costs of delaying action on emissions reductions will incur increased costs to the economy. To fail to do so ignores the fundamental intent of the Renewable Energy Target. In its third report, the IPCC Chairman declared this week that “There is a clear message from science: To avoid dangerous interference with the climate system, we need to move away from business as usual.”

Other comments

We note in the call for submissions that the One Million Roofs program is specifically not mentioned, which is a key measure of the Government’s alternative to current programs that it is set to review, including the Renewable Energy Target and the Carbon Price. The implications of changes to the Renewable Energy Target have already been provisionally modelled by a number of analysts including SolarBusinessServices. We urge the panel to consider that changes to the Renewable Energy Target and any impacts that ensure must be considered in the broader context of other complimentary programs and the previously mentioned issues. This can be simply summarised in the following graphic which we refer to as the “cumulative stack” of policies. According to our analysis of current policy mechanisms, only one program has a known and positive impact on the market at the present time. The remainder are all either already stopped or under review and the cumulative negative pressure cannot and should not be underestimated.



Conclusions

The Renewable Energy Target has provided a stable, successful investment climate in recent years and has successfully delivered on its primary objectives.

The review of Renewable Energy Target although unwarranted in our opinion, must take into account a complex and rapidly evolving set of dynamics for it to be in any way meaningful. We urge the Panel to take the opportunity to update its data set and use the opportunity to assist the electricity and renewable industry to create a “new normal” that will benefit all Australians.

We would welcome the opportunity to participate and provide you with access to data that we have on the industry.

Nigel Morris

17th April 2014

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