Review of Energy Market Frameworks in Light of Climate Change Policies - Scoping Paper

Introduction

Suzlon Energy Australia Pty Ltd (SEA) is the largest turnkey constructor and operations and maintenance service provider of grid connected wind farms in Australia.

We are a subsidiary of Suzlon Energy Ltd of Pune India, the world's fifth largest manufacturer of wind turbines.

In Australia, we are presently delivering over 450 megawatts of wind power generation across five wind farms, for a range of utility and investor clients.

We welcome the opportunity to provide input into the Australian Energy Market Commission (AEMC) *Review of Energy Market Frameworks in light of Climate Change Policies*, and we look forward to further engagement with the AEMC while the review is underway.

This submission outlines our initial views about some of the key issues that we believe should be considered in the review.

Summary

- SEA welcomes the review of current energy market frameworks in light of the expanded Renewable Energy Target, and the introduction of a Carbon Pollution Reduction Target.
- We recognize that the scope of the Review does not go as far as looking at the objectives of the electricity and gas markets. However, given the scale of the challenge of moving to a low carbon economy, and the significant role the energy sector will need to play in making the transition, it will be critical that climate matters be central to all energy market decisions. It would therefore be useful to give some consideration outside of this review as to how the objectives of the energy market may need to evolve in light of the urgent imperative to both mitigate and adapt to climate change.
- SEA believes that the review should include consideration of how current energy market frameworks facilitate:
    - Strategic investment in the electricity infrastructure needed to support a low carbon economy; and
    - The effective participation of Demand Side Management and Storage in the market to help the network support an increased amount of energy from renewable sources.

Key points

Energy Market Objectives

The AEMC has been asked to undertake the Review with regard to current energy market objectives.

Currently the energy market objectives are focused on promoting efficient investment in, and efficient operation of electricity and gas for the long-term interests of consumers with respect to price, quality, safety, reliability and security of supply.

It could be argued that tackling climate change is a very important part of meeting the long-term interests of consumers. However, if moving to a low carbon economy is not included as an explicit objective of the energy market, then it is difficult to see how such a significant transformation can occur.

In Australia, energy accounts for around half of our total greenhouse gas emissions1 Making deep cuts in our overall greenhouse gas emissions will require significant changes to our energy system. It is therefore critical that the energy market is actively designed to promote investment in efficient energy use, and low carbon energy supply.

We believe that there is a need, outside of this review, to consider how the objectives of the energy market may need to evolve in light of the urgent imperative to both mitigate and adapt to climate change.

This is a very live debate in the UK. Ofgem, the body that regulates the gas and electricity markets in the UK, has a primary objective to protect the interests of consumers by promoting competition and regulating monopolies. In addition, it has a number of secondary duties, including having regard to social and environmental guidelines issued by Government. Some stakeholders believe that Ofgem's duties should be amended so that sustainable development is elevated to be a primary objective, while other stakeholders feel that strengthened guidance from Government would be sufficient. The Government recently consulted on revised statutory guidance, which is still to be finalised.[2]

Strategic investment in infrastructure

In the near future, there will need to be significant investment in the infrastructure needed to support a low-carbon economy. Renewable energy development is already facing serious transmission constraints in some parts of Australia.

The development of new and reinforced infrastructure will require a coordinated approach. Bilateral negotiations between developers and transmission companies are unlikely to create the optimal transmission network infrastructure for the large-scale deployment of renewable energy.

We welcome the new role of the AEMO and the National Transmission Planner (NTP) for the transmission grid. In particular, we are interested in how the NTP will guide investment in the power system, and how this will relate to the activities of the transmission network service providers.

[1] *National Greenhouse Gas Inventory 2006,* http://www.climatechange.gov.au/inventory/2006/index.html
[2] *Social and Environmental Guidance to the Gas and Electricity Markets Authority: A Consultation Document,* http://www.berr.gov.uk/files/file46749.pdf

We are also very interested in the work that Infrastructure Australia is undertaking, looking at the infrastructure priorities for Australia. It is our view that there is a need for investment in the transmission network, to facilitate the large-scale uptake of renewable energy.

Renewable energy has a critical role to play in transforming our energy system so that it is far less carbon intensive. This is a priority for Australia, and should be supported by action at a State and Federal level to facilitate investment in the infrastructure that is needed to enable the efficient generation and transmission of renewable electricity. The scale of the challenge can be compared to delivering the Snowy Mountains hydro electric scheme, which was seen as a national priority, and required cooperation across State boundaries.

The Review should look at whether the current energy market framework enables the coordinated and strategic approach to transmission infrastructure that is needed to support a low carbon economy.

Demand Side Participation and Storage

Addressing the greenhouse challenge will require a significant investment in low-carbon energy supplies, such as zero-carbon wind generation. As a result, the energy system will need to be able to accommodate an increased amount of generation from naturally variable renewable resources.

There are a number of factors that will help manage the natural variability of renewable sources.

- From March 2009, wind farms will be required to be semi-scheduled generators;
- In Australia, we will see an increased geographical spread of wind farms; and
- The introduction of the wind forecasting system will make it possible to plan around wind generation.

In addition to these initiatives, we believe that there is an increasingly important role for greater Demand Side Participation to balance an increased contribution of renewable energy generation.

Currently, the energy market responds to the demands of consumers, with very little active participation from energy users. In the future, there will be more opportunities for effective Demand Side Participation in the market, particularly as smarter metering technology is introduced and more appliances that can be controlled automatically are developed.

We see that there is still a very significant opportunity in the current energy markets to better facilitate the participation of energy users in the network to actively manage demand. That is why we are pleased to see the parallel activity looking at Demand Side Participation, and that the AEMC will be taking this work into account when undertaking this Review.

We also think it would be useful to use this review to look at how storage (such as electric vehicles) is addressed in the current energy market framework, as this could form part of an effective long-term strategy to manage an increase in electricity supply from naturally variable renewable sources.

Conclusion

The Carbon Pollution Reduction Scheme, and the expanded Renewable Energy Target will drive investment in low carbon energy supply. While the current energy market frameworks will manage this in the short-term, in the long-term, renewable energy development has the potential to be constrained by electricity transmission constraints. As a result, we see an important role for Government to help coordinate the strategic investment in electricity infrastructure that will be needed to ensure we can migrate towards a low carbon economy.

We look forward to the next phase of this Review, and welcome further dialogue with the AEMC.