Submission to Energy White Paper issues paper

February 2014

Introduction and background

Vestas Australian Wind Technology Pty Ltd is the local subsidiary of Vestas Wind Systems A/S, the world's largest manufacturer of wind turbines. We welcome the opportunity to make a submission in response to the Energy White Paper issues paper (**EWP issues paper**).

Vestas is the world's leading supplier of wind power solutions, having installed more than 55 gigawatts of wind turbines across the globe. Worldwide, Vestas employs more than 15,000 people in the design, manufacture, sales, installation, operation and maintenance of wind turbines.

While the home country of Vestas is Denmark, we have significant operations all across the world and we are experienced in comparing policies and regulations in all our markets.

Vestas has been responsible for the supply of more than half of the wind energy capacity installed in Australia, including the 420 megawatt Macarthur Wind Farm in Victoria, the largest wind farm in the southern hemisphere.

Vestas is a member of the Clean Energy Council (**CEC**), and in addition to our own submission we would also refer the Australian Government to the CEC's submission to the EWP issues paper.

Over the past decade in Australia, the wind energy industry has grown substantially in almost all states and territories, to the point where almost 3000 megawatts of installed wind capacity is now operating.

That growth is now delivering benefits across the country. The best example is South Australia where wind energy provided 26% of that state's power supply in 2011, and has been responsible for lowering wholesale electricity prices, creating jobs and reducing greenhouse gas emissions.

The primary reason for the wind industry's growth has been the Australian Government's Renewable Energy Target (**RET**) scheme, which together with its predecessor the Mandatory Renewable Energy Target has driven most of the investments in wind energy in Australia since 2001. The decision in 2009 by the Australian parliament to lift the target to at least 20% of electricity supplies by 2020 will continue that growth over the next decade.

The other key driver behind this growth has been the policy imperative for all nations around the world to cut greenhouse emissions in an effort to reduce the impact of climate change. Wind power is the most cost-effective form of zero emissions renewable energy, and is forecast to retain this status for many years to come.

Outline of this submission

Like its predecessor in 2012, the EWP issues paper devotes significant space to discussion of energy issues in the broader sense, particularly in terms of upstream fossil fuel resource development, fuel security and transport fuels.

As we did in 2012, our submission will not address those wider aspects and will instead focus on policy matters related to stationery energy, and in particular on electricity.

The main topics in our submission are as follows:

- A shared vision
- Investment grade policy
- The Renewable Energy Target
- Retail price impact of the RET
- The clean energy transformation
- Ending fossil fuel subsidies
- Streamlining environmental approvals processes
- National Electricity Market reform
- Transmission policy
- Public and private ownership of electricity assets

Many parts of our submission have not changed since 2012 but there are particular areas that have been revised to take into account new research, market trends and policy changes.

A shared vision

Like so many other areas of Australian economic and public policy, energy is a topic with shared responsibility between state and federal governments. In fact, most legislative power on matters to do with electricity (the main focus of this submission) is held by state governments rather than the Australian Government. Meanwhile, asset ownership is split between governments and private sector investors.

For Australia to progress towards necessary and timely reforms, what is required is **a shared vision of the future electricity system**. That's no small goal; it means that all relevant stakeholders much reach consensus on the ideal energy mix, price, greenhouse intensity and necessary infrastructure involved in achieving this vision.

This must be shared between the Australian Government, the various state governments, the regulatory agencies, the investment community and electricity users.

That shared vision does not exist at present. The split of legislative power and the absence of a shared vision has led to a highly political debate that deters investors and has also resulted in often hysterical media coverage that has focused on the cost of energy but not on the logistics of producing and supplying it.

The absence of bipartisan political support for matters such as climate change policy have left energy sector investors in a position where they have major concerns about the longevity of any measures, such as a carbon price or the proposed Direct Action policy.

This is not a new phenomenon and nor is it a purely Australian issue but it needs to be fixed if energy sector investors are to make the necessary investments in Australia's future.

Investment Grade Policy

To make the investments necessary to ensure Australia achieves the shared vision discussed above, the business community will need to see state and federal governments develop and implement "investment grade" energy policy.

To be "investment grade", policy needs to tackle all the relevant factors that financiers assess when looking at a deal. It must be embedded in wider energy policy, and be stable across the lifetime of projects. Investors need to be confident, in a policy-driven market like the renewable energy sector, that governments are serious.[1]

For example, investors need to see state and federal governments reaffirm their commitment to the RET. Significantly scaling up renewable energy over the medium and longer term requires immediate government attention to the sequencing, planning and integration of the underlying infrastructure required to deploy renewable energy on a large scale.

That includes taking a fresh look at the electricity market and the rules and regulations governing it, to remove barriers to entry for new investors in renewable energy projects and ensure they get connected to the power grid so that the RET is met by 2020 at the lowest possible cost.

On page 24 of the EWP issues paper, comment is sought on ways the Australian Government can remove unnecessary barriers to continued foreign investment in Australia's energy sector.

Regardless of whether investors are foreign or local, the Government can and should always try to find ways to reduce sovereign risk. In the minimal sense this

[1] "*Unlocking Finance for Clean Energy: The Need for 'Investment Grade' Policy*", Kirsty Hamilton, Chatham House, December 2009

might be limited to avoiding changes in law or executive acts that adversely affect existing investments.

But that is only part of the story. For investors both local and foreign, stability of policy is very important in order to secure finance for major new investments (such as power stations) from major banks. By contrast, the current biennial review of the RET is a classic example of government increasing sovereign risk.

The 2012 review of the RET began in July 2012, and was completed just prior to the end of the year. The Australian Government took a further amount of time to provide its response to the review, and subsequently chose not to implement its response with legislation. Investment in renewable energy slowed markedly during this period, which was exactly the opposite of what the RET legislation sets out as one of its key objectives.

To quote AGL Energy's Tim Nelson, "constant review is not reform".[2] The investment paralysis created by regular reviews of the RET and dramatic changes in greenhouse policy over the years adds a risk premium to energy investments in Australia. That risk has a cost, and that cost is passed on to consumers in the form of higher power bills.

The Renewable Energy Target

One of the most important things the Australian Government can do as part of this Energy White Paper process is to restate its commitment to the RET.

The current level of the RET became Australian Government policy in late 2007, following the federal election that year. Legislation to facilitate the achievement of this increased target was passed in 2009 and underwent constructive reform in 2010 with the support of all major political parties.

In recent months the RET has come under question from its opponents, and the scheme will undergo a review during 2014 even though the last review of the RET was completed barely over a year ago.

One of the oft-cited reasons for reducing or abolishing the RET is a purported impact on retail power prices. Such a claim is not supported by the evidence.

The reality is the current design and trajectory of the RET has only a very small impact on retail power prices, and over the long term will protect the Australian economy from exposure to the fast-rising price of domestic gas, particularly in the eastern states.

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[2] "*An analysis of Australia's Large Scale Renewable Energy Target: restoring market confidence*" T Nelson et al, September 2012, published in http://ec.europa.eu/clima/consultations/articles/0017/unregistered/agl_5_en.pdf

Most notably, despite its 2009 design flaws (corrected by the Australian Parliament in 2010, when the RET was split into large-scale and small-scale schemes from 1 January 2011) the RET has been highly successful in attracting significant investment in clean energy and meeting the Australian Government's policy objectives at a low cost to consumers.

One point from the EWP issue paper that needs to be corrected is a reference on page 36, where it is said the RET "mandates that a 20 per cent share of estimated electricity comes from renewable sources in 2020."

The clearly stated Australian Government policy has repeatedly said the RET aims to achieve a share of **at least** 20% from renewable sources by 2020.

At the 2007 federal election, the incoming government's policy was to ensure "*A Rudd Labor Government will ensure that the equivalent of **at least** 20 per cent of Australia's electricity supply – approximately 60,000 gigawatt hours (GWh) – is generated from renewable sources by 2020 as part of Labor's comprehensive approach to tackling climate change*."[3]

That policy was later endorsed by all major parties in the Parliament of Australia in 2009 when the key amendments to the RET legislation was passed.

When the 2010 reforms to split the RET into the LRET and SRES were announced, the Australian Government said "***These changes are expected to deliver more renewable energy than the original 20 per cent target** and will ensure we build the clean energy future Australia needs."*[4]

Not at any stage in any of those debates since late 2007 have either of the two major political parties or their representatives in the Parliament of Australia suggested that the 20% target should operate as a cap.

Retail price impact of the RET

Page 11 of the EWP issues paper claims (without citing any evidence, unlike the preceding assertions on the same page) that "green energy schemes, such as the Renewable Energy Target" have had "significant impact" on retail power prices for households.

This claim cannot go unchallenged.

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[3] "*Labor's 2020 target for a renewable energy future*" Election 2007 policy document, Australian Labor Party, October 2007

[4] "*Enhanced Renewable Energy Target Scheme*" Joint Media Release, Senator Penny Wong and Greg Combet MP, 26 February 2010

In the most recent review of the Renewable Energy Target, economic modelling by Sinclair Knight Merz (now known as SKM MMA) found that $15 per year from now to 2031 is all that an average Australian household would save if the RET was abolished.[5]

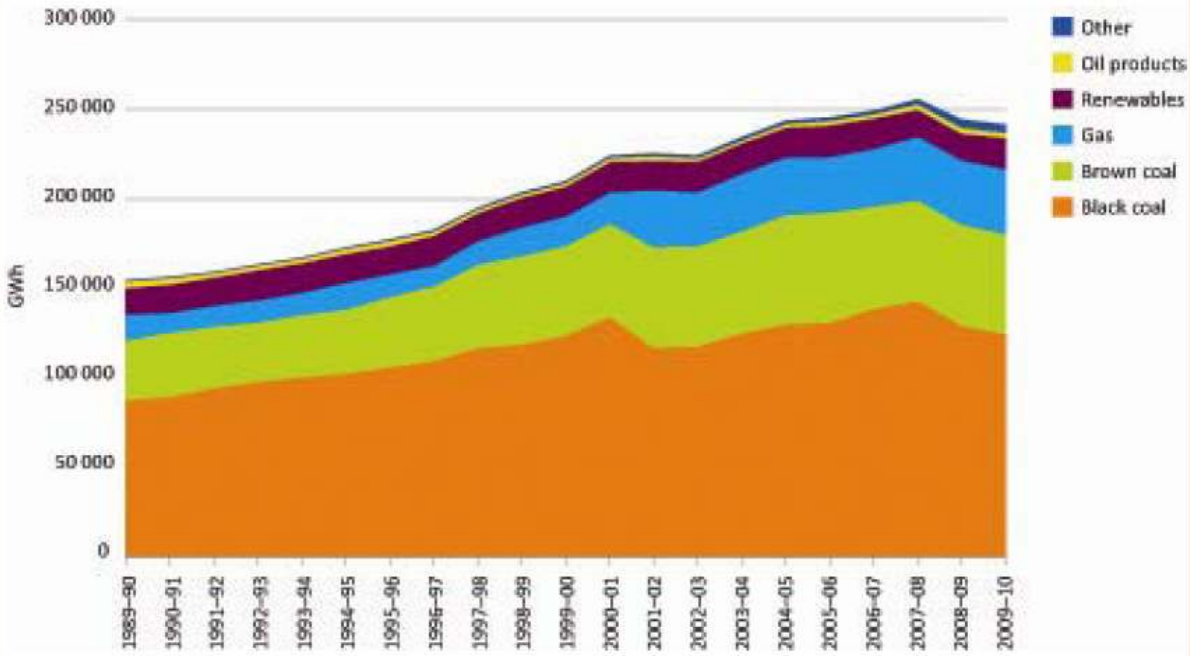
With east coast domestic gas prices rising substantially since the modelling was undertaken, it is likely this "saving" no longer exists and an abolition of the RET would see power prices rise for households and businesses rise for many years to come.

Similar numbers have also been derived by other recent reports on the topic and are detailed in the CEC's submission to the EWP issues paper, to which we recommend you refer.

The clean energy transformation

Australia currently relies upon black and brown coal to provide most of its electricity supply, and has done so for many years.

Figure 2.7: Electricity production, by fuel, 1991–92 to 2009–10



Source: ABARES, *Energy update 2011*, ABARES, Canberra, 2011, p. 8.

During the previous century, this heavy reliance on fossil fuels was not a big issue. However, the global move towards greenhouse gas emission reduction

[5] "*Modelling the Renewable Energy Target*" Sinclair Knight Merz report for the Climate Change Authority, December 2012, page 6.

means that Australia has a significant "carbon risk" and would do well to diversify into other forms of electricity generation before this becomes a forced choice.[6]

Even in the absence of greenhouse gas emission reduction targets, the fact that coal and gas have provided low-cost electricity during the previous century does not mean that this is likely to continue in this century. Labor costs, extraction costs and pollution costs are all relevant factors to consider in moving away from such a heavy reliance upon coal and gas.

The recent move of east coast domestic gas prices towards parity with LNG export pricing has shocked many energy users and analysts and could have a significant negative impact on economic growth.

In addition, the further expansion of coal mining and gas extraction has been facing increased community concern, particularly from farmers. Coal mining is an activity which is not able to coexist with farming activities in most cases, as it entails open cut methods or involves such significant activity at the mine mouth that growing crops or managing livestock becomes problematic, and in many cases impossible in the same location as the mining activity or gas extraction.

In addition, access to water is also a major factor that makes it difficult for coal mining and gas extraction to coexist with farming. Unlike other users of water, power stations often obtain their water at sub-commercial rates and this has been under challenge in recent years.

The National Water Commission has examined these issues and said electricity generators "should face the full economic costs of their consumption decisions, so they have incentives to invest in more efficient technologies."[7] Coal-fired power stations use large volumes of water for cooling purposes, so this is no small issue.

By contrast, wind energy does not face these issues. Barely any water is required for the operation of wind turbines. They cause no air or water pollution. There are no greenhouse gas emissions from wind turbines. And wind energy, unlike many other forms of electricity generation, does not have a fuel cost.

As noted by independent think tank the Grattan Institute, other alternatives such as nuclear power and so-called carbon capture and storage technology for coal-fired generators are unlikely to be built in Australia unless government takes on most of the material risks of the project.[8] That is likely to be expensive and highly unpopular with taxpayers, particularly while lower-cost alternatives such as wind energy are ready to be built right now.

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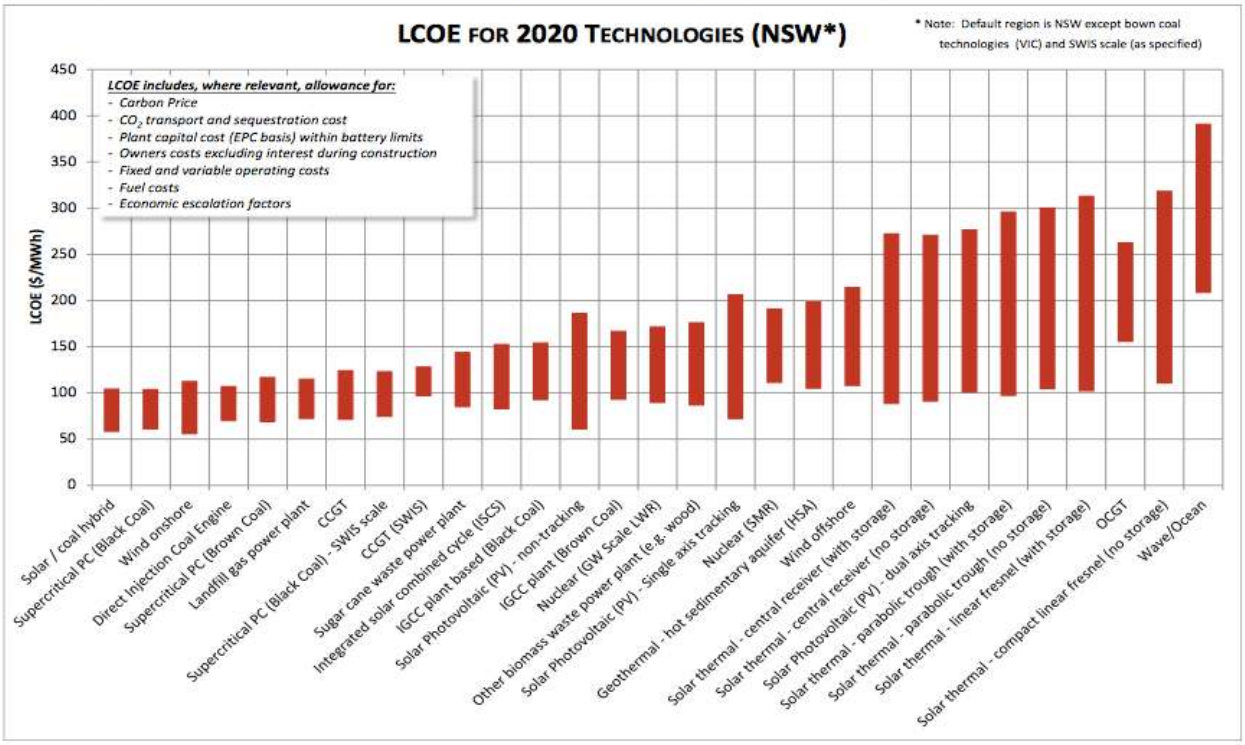
[6] "*Global Climate Leadership Review 2012*", The Climate Institute/General Electric p.6
[7] "*Water and the Electricity Generation Industry: implications of use*" National Water Commission, 2009
[8] "*No easy choices: which way to Australia's energy future?*" Grattan Institute, February 2012

All of these factors above mean that an increase in wind energy generation in Australia is an excellent strategic move in light of water and greenhouse gas constraints, and such a move will also act as a natural hedge against any increase in the fuel costs of coal and gas-fired power stations.

Figure 9: Updated LCOEs for AETA 2013 Model technologies, values for 2020 (NSW), with carbon price set to zero.



Nuclear power: expensive and irrelevant for Australia

At a couple of points in the EWP issues paper, the prospects of nuclear power are discussed in a positive light.

That is odd in one respect, as it is Australian Government policy and also Australian law that specifically rules out nuclear power.

We have no problem in engaging in a debate over nuclear power in Australia. It is incongruous that the rest of the EWP issue paper seems so focused on keeping the cost of energy down but then raises the prospect of nuclear power for Australia.

For example, on page 35 the challenge of keeping power prices down is discussed, only to go on a couple of paragraphs later to talk up the prospects of one of the most expensive power generation technologies available (“nuclear

technologies continue to present an option for future reliable energy that can be readily dispatched into the market") on pages 35 and 36.

Let's be clear: nuclear power is expensive and irrelevant in Australia. Leading global investment bank Citigroup in 2009 described nuclear power as a "corporate killer", going on to explain that "three of the risks faced by developers - Construction, Power Price, and Operational - are so large and variable that individually they could each bring even the largest utility company to its knees financially."[9] Very little has changed since then.

Page 36 of the EWP issues paper mentions "the United Kingdom has recently announced the development of significant new nuclear capability to replace existing plants."

In reality, the October 2013 announcement by the UK Government of a new nuclear power station at Hinkley Point reveals exactly what it takes to get nuclear power projects built:

- a long time (forecast to be 10 years)
- a huge subsidy
- a high power price, guaranteed for the life of the power station; and
- government to take most of the material risks involved in the project.[10]

It certainly isn't just environmental activists who would be opposed to Australia heading down the same path as the UK. Most of the dot points above seem diametrically opposed to everything that current and former Australian governments have been aiming to achieve with energy policy in recent years.

Ending fossil fuel subsidies

A significant barrier to the attraction of new investment in cleaner energy sources is the level of subsidies given to fossil fuels. In Australia this still remains enormous.

The combined level of budgetary support for fossil fuels provided by state and federal governments in Australia has been estimated by the Australian Taxation Office to be $8 billion per annum.[11]

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[9] "*New Nuclear – The Economics Say No*" Citigroup, November 2009, viewed at http://npolicy.org/article_file/New_Nuclear-The_Economics_Say_No.pdf

[10] "*Hinkley Point good for Britain, says Ed Davey*" Daily Telegraph (UK), 21 October 2013, viewed at http://www.telegraph.co.uk/finance/newsbysector/energy/10395169/Hinkley-Point-good-for-Britain-says-Ed-Davey.html

[11] "*No easy choices: which way to Australia's energy future?*" Grattan Institute, February 2012

These subsidies take many forms and do not get anywhere near enough scrutiny when one considers the level of taxpayer funding (including foregone revenue) involved.

For example, the 2010-11 privatisation of NSW electricity generation and retail businesses involved a commitment by the NSW Government to fund and build a new coal mine at Cobbora to supply coal at sub-market rates to other electricity generators in the future, which was quite unexpected by most other investors[12].

Subsidies to fossil fuels will be a burden for taxpayers for many years to come, while the artificially low price of the coal will distort the electricity market for existing and future investors.

These kind of inefficient fossil fuel subsidies are exactly the kind of measures that Australia (together with the other G20 countries) has agreed to end or phase out. Such reforms should be pressed ahead with, in the interests of both taxpayers and investors.

Streamlining environmental approvals processes

The EWP issues paper restates the Australian Government's policy to reduce the regulatory burden being incurred by the business community and notes the Government wants to identify unnecessary regulatory burdens that do not provide a net benefit for the economy, consistent with best practice regulation.

While we note the EWP issues paper's comments on the "social licence to operate", it is also important to note that the coal seam gas industry is not the only part of the energy sector that has been hit by new and variable land access policies.

In Victoria, wind projects cannot secure a planning permit unless all wind turbines comprising a single project are at least 2 kilometres from the nearest dwelling, and must secure the consent of any landowner within that distance. In effect that gives neighbours a power of veto (without reason or cause) over the extent to which farmers can maximise the revenue they earn from their land.

Such laws not only impose restrictions on the economic return that farmers can derive from their land, but they also increase the cost of wind farms and they set a dangerous precedent for other energy projects in rural areas. In the short term it may seem to be a minor issue but in the long term this kind of precedent will harm Australia's economic prospects and set the tone for various activists to place further restrictions on economic development, particularly for energy infrastructure.

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[12] "*O'Farrell's devilish dilemma*", Keith Orchison, www.businessspectator.com.au, 7 November 2011

It is inconsistent for governments to claim they are concerned about increases in energy prices, yet introduce or encourage new restrictions and hurdles for energy projects at the same time.

In this light the election policy of the recently elected Australian Government to introduce new noise regulations for wind farms as well as yet another “health study” may well be aimed at addressing anti-wind activism but their ultimate result will see an increase in the regulatory burden for the industry and an increase in the cost of current and future energy projects that consumers will ultimately bear through their energy bills.

National Electricity Market reform

While investment in new renewable energy generation projects has been growing in recent years, the step change involved in moving from the current level of around 12% of Australia’s electricity supplies up to at least 20% in less than a decade is a significant one.

But renewable energy investors on the eastern seaboard find their task even tougher because the National Electricity Market (**NEM**) they seek to participate in was never designed with renewable energy generation in mind.

Australia’s power grid and regulatory structures were both designed to suit the needs of the previous century, and it is arguable that further reform is needed to facilitate the needs of a modern, low-carbon economy.

The transmission infrastructure in particular was predominantly designed to carry power from power stations built near coal fields to cities hundreds of kilometres away, and most of it was built decades ago.

The rules governing the NEM make it hard for investors in new renewable energy projects to get connected to the grid and they present a major barrier to future investment.

While the COAG Standing Committee on Energy and Resources is chaired by the Australian Government, the Australian Parliament does not have the constitutional power to reform the NEM.

Legislative power over electricity supply is exercised by state parliaments. The *National Electricity Law* is actually a piece of South Australian legislation, mirrored by equivalent Acts in other state parliaments around the eastern seaboard.

Despite the Australian Government having no legislative power in this area, the Energy White Paper process does provide an opportunity to properly address the key issues that face the NEM now and in the future.

It would seem odd to ignore the looming and substantial change to the mix of generation in the NEM as a result of Australian Government policies and legislation including the RET.

Yet that is the current situation in the NEM. Consideration of such matters is constrained by the National Electricity Objective (**NEO**), set out in section 7 of the National Electricity Law (**NEL**):

> *The objective of this Law is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to-*
>
> *(a) price, quality, safety, reliability and security of supply of electricity; and*
>
> *(b) the reliability, safety and security of the national electricity system."*

The NEO does not contain any references to the RET, greenhouse emissions from the electricity sector, or any other kind of environmental matter. The focus of the NEO is firmly on the long term interests of electricity consumers, but only in the context of price, quality, safety, reliability and security of supply.

This in turn effectively excludes agencies like the Australian Energy Market Commission (**AEMC**) from considering, for example, what kind of transmission framework reforms would be required in order to facilitate the achievement of the RET at the lowest possible cost by the year 2020.

As the AEMC said in its 2011 Issues Paper:

> *The AEMC is required to have regard to the National Electricity Objective (NEO) in every review it undertakes and every change to the National Electricity Rules (NER or Rules) that it assesses.* ***The NEO will therefore form the overarching principle*** *for the assessment framework used to evaluate potential transmission reforms.*

Similarly, the Australian Energy Market Operator (**AEMO**) explains in its *Introduction to Australia's National Electricity Market*, NEM institutions like the AEMO and AEMC are prevented by the NEO from giving effect to policies or legislation such as the RET that favour one kind of fuel source (renewable energy) over others:

> *AEMO's charter focuses specifically on efficiency, security and reliability of power supply, and excludes favouring one fuel source over any other. Consequently, AEMO has neither the power nor the authority to make decisions based on considerations of sustainability and balance in resource management.*

So, while the AEMC and the AEMO are able to take note of policies and legislation such as the RET as a notable development and "the driving force behind new investment in renewable generation" (the wording used in the AEMC's consultation paper on the 2011-12 Scale Efficient Network Extensions Rule change proposal), the AEMC cannot propose any reforms or rule changes if they would help successfully deliver the RET but work in any way against the NEO.

That fundamental conflict means that none of the recent and current reviews conducted by the AEMC are likely to propose reforms that will ensure Australia lifts its proportion of electricity generation from renewable sources in line with the requirements of the RET legislation by the year 2020.

The RET policy and legislation unashamedly gives primacy to renewable energy generation. But the NEL (and in particular the NEO) takes a completely neutral stance.

Unless and until the various state parliaments amend the NEL to include some weight, relevance or value ascribed to the achievement of Australian legislation such as the RET, then NEM agencies like the AEMC and the AEMO have got their hands tied.

Those agencies are bound to make their decisions and carry out their work in line with the NEO, not with the RET. Where there is a conflict between government policy and the NEO, this also means they are duty bound to ignore government policies that is inconsistent in any way with the NEO – especially something like the RET that favour one type of generation over another.

Agencies like the AEMC and the AEMO are well aware that the Government has policies in place to change the electricity generation mix and increase the level of renewable energy. Their publications since 2009 make this clear.

If the Australian Government wants to achieve its target of at least 20% renewable energy by the year 2020, it cannot expect agencies like the AEMC and the AEMO to play any part in this effort if it would require any steps to be taken that the NEO would not otherwise compel.

With most of the recent increases in retail power prices being driven by higher network charges approved by the AER it is arguable whether the NEO is even being met anyway. But that is a discussion that is taking place elsewhere.

Accordingly, Vestas considers that the NEL should be amended to include a new NEO, one that perhaps addresses matters such as greenhouse emissions from the energy sector and the promotion of renewable energy. That may not be a

matter that the Australian Parliament can resolve, but it is certainly something the Australian Government can express a view upon in order to help achieve the RET at the lowest possible cost in the long term interests of electricity consumers.

Transmission policy

The biggest long-term issue faced by renewable energy investors is the location of the best renewable energy resources, and the steps involved in getting large-scale projects with high capacity factors connected to the grid.

For potential wind farms, solar projects and geothermal developments in remote parts of Australia, grid connection is a huge issue.

Most of the transmission lines across the NEM were built decades ago, funded by taxpayers through state-owned companies like the State Electricity Commission of Victoria.

There was no NEO back then. There was no “net benefits” test when coal-fired power stations were being developed back in the 70s and 80s. State governments just made the decision to invest and there was little transparency and barely any private sector involvement.

Like all AEMC operations and processes, the Transmission Frameworks Review has been undertaken in accordance with the NEO, as if it were some time-honoured constitutional principle that was immune from scrutiny or challenge.

But the NEM itself is little more than a decade old. And the current version of the NEO has only been in place since 2005.

Yet this framework already seems out of date when one considers the challenges posed by climate change, and the need to change Australia’s energy mix to meet the RET by 2020.

In the meantime, the current set of rules will continue to push renewable energy investors towards sites and projects that have lesser quality resources but are closer to existing transmission lines or load centres. And that means those projects will also be closer to population centres, which has its own set of problems.

Those investors who moved first and developed wind farms close to the grid in the years before their competitors woke up to these issues might well oppose any changes to the NEM that would make it easier for other projects to be built in the future. They might raise arguments about asset stranding and sovereign risk, and these are certainly points that should be factored into future market design.

Such points are relevant but they should not be enough to postpone reform of the NEM to assist with the achievement of the RET by 2020. That goal is a bipartisan one in Australian politics but without serious reform of the transmission frameworks in the NEM by the states then its achievement is in some doubt.

For example, AEMO has in recent years been developing a proposal known as NEMLink, which is a planned transmission interconnector that would run through inland NSW and its neighbouring states to strengthen energy security and allow more renewable energy resources to connect in to the NEM. AEMO refers to the NEMLink proposal as the "backbone" of the NEM, as it will enable a truly national market for electricity rather than the current series of interconnected regional markets.[13]

However, AEMO has become frustrated that NEMLink is unlikely to proceed while the current National Electricity Law and National Electricity Rules remain in their current form. AEMO CEO Matt Zema has said "to realise the benefits of NEMLink and co-ordinated gas and electricity investment, changes are required to the regulatory and transmission frameworks."[14]

Despite its significant wind resources, one of the biggest issues for Australia is its lack of transmission and distribution assets in a number of areas where the best wind energy sites are.

This is not a problem unique to Australia, but it is one that needs to be addressed if Australia is to reach its full potential in relation to wind energy generation.

The challenge is to trigger new electricity network investment to unlock Australia's significant untapped wind energy resources, which are in many cases located well away from existing power stations, transmission and distribution lines and load centres.

Additionally, as the AEMC has stated, the existing model for bilateral negotiation for new connections will not cope efficiently with multiple connection applications.

In 2010, the Ministerial Council on Energy (now replaced by the COAG Standing Council on Energy and Resources) has also recognised this, stating that transmission network providers "currently have no commercial incentive to build network connections to an efficient scale in anticipation of future connection"[15].

The challenge remains for energy policy officials and agencies like the AEMC and AEMO to work together to find a way through this issue that does not seek to

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[13] "*2011 National Transmission Network Development Plan*", AEMO, December 2011
[14] Ibid.
[15] "*Rule Change Request – Scale Efficient Network Extensions*" MCE, February 2010

place most or all the commercial risks on the new investors that Australia is seeking to attract.

Many of the issues referred to above have been faced by other jurisdictions around the world and solutions have been found.

With respect to the issue of planning and funding access to new transmission networks in remote areas, the most widely known and successful solution seems to be the concept of Competitive Renewable Energy Zones (**CREZs**) in Texas USA, administered by grid manager ERCOT.

Under that model, the regulatory body mandates investment in new transmission assets in area rich in renewable energy resources but poor in terms of transmission. This cost is initially passed on the end consumer of electricity, but as each new wind farm connects to the grid, the developer pays a connection fee and correspondingly reduces the amount paid by energy users.

Vestas considers that this approach should be adopted in Australia for both distribution and transmission assets, including transmission lines across state borders.

Public and private ownership of electricity assets

We note that the EWP issues paper raises the issue of the continued ownership of electricity industry assets by state governments.

Australia's electricity industry was largely designed, built and funded by state governments and later, state government-owned corporations. Over the past two decades this ownership structure has changed in many states, though not in all of them.

For example, the NSW Government has almost completed the process of selling its remaining interests in electricity generation businesses, but the NSW Premier has stated again recently that he will not sell off the network businesses.

How does government ownership of energy businesses make a difference to investment attraction? It does so due to an inherent conflict, namely that the relevant government not only expects to derive a return on its assets but it also has the power to set policy and take regulatory decisions that will not only have an impact on its own investments but will also affect the fortunes of those private sector investors who compete with government owned businesses or rely upon them for a service.

The conflict of interest is not simply a perceived one; it is a real one that has an impact on investment attraction in many states. As an example, former NSW Energy Minister Frank Sartor has revealed the extent of this conflict, noting that it

was NSW Treasury officials rather than his own department who took the lead on advising him on national energy reforms, and on other occasions the NSW Government had directed its network businesses to deliver additional dividends to Treasury, which came from additional charges to users.[16]

While governments in NSW and other states continue to own electricity assets while also setting policy in this area, private sector investors in face higher levels of regulatory risk and will accordingly seek a higher rate of return to match this or they will invest in other jurisdictions where this risk is lower.

Next steps

Vestas staff would be pleased to meet with Australian Government officials to discuss this submission and answer any other questions you may have. Please contact the writer on (03) 8698 7300 to do so.

[16] "*The Fog on the Hill*", Frank Sartor, Pan Macmillan Australia, 2011, p.112-113