



SEARCHING FOR REALISTIC PATHWAYS IN A NEW ENERGY WORLD – AN INITIAL COMMENTARY ON THE AUSTRALIAN ENERGY WHITE PAPER

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THE CRITICAL NEED FOR ‘INVESTMENT GRADE’ ENERGY POLICY

Because of the highly capital-intensive nature of the energy industry, the Energy Policy Institute of Australia considers that ‘investment grade’ energy policy, i.e. policy that is well-balanced, robust and stable, is critical to attract investment and to manage regulatory risk in the energy industry.

The Institute is an independent, apolitical, energy policy body whose aims are:

- ⇒ to promote an investment climate in Australia in which capital may be safely invested and which will ensure that Australian industry remains internationally competitive;
- ⇒ to support free market choices within a sound national and global policy framework; and
- ⇒ to seek to align all government policies to underpin the sustainability of energy supply.

With these considerations in mind, the Institute has published this initial commentary on the Energy White Paper (“EWP”) released by the Australian government in November 2012.¹

¹ This commentary is intended to provide a basis for discussion by the Energy Policy Institute and its members in the lead-up to the annual Energy State of the Nation (ESON) forum in Sydney on 22 March 2013. It is to be presented to the National Conference of the Australian Institute of Energy on 20 November 2012 and to be circulated as a background paper for a briefing on Energy Supply in New South Wales to be held by the Energy Policy Institute in Sydney on 3 December 2012

THE HISTORY OF DEVELOPMENT OF THE EWP

The present Australian government came to power at the end of 2007 and soon embarked on development of the EWP. This was no easy task and, for the reasons explained below, the government took until the end of 2012 to complete it.

Australia had also been making entirely separate endeavours to formulate a clean energy policy, which it ultimately called the “Clean Energy Future” (“CEF”) plan. These endeavours were protracted and difficult and they effectively sidelined the development of the EWP until June 2011. The CEF plan was enacted into law in December 2011, which enabled the government to release a draft EWP for public discussion.

At 234 pages, the final EWP is replete with a wide range of policy principles, recommendations and ‘rules of the road’ but it is short on assigning responsibilities for action. It is also unduly long and repetitive. By contrast, the equivalent White Paper on Energy Policy in China, published annually, is only 11 pages.

A NEW ENERGY WORLD TROUBLED BY POLICY AND REGULATORY RISK

In the almost-five years that it took Australia to produce an energy white paper, it is no exaggeration to say that a new energy world has emerged. The new energy world is one in which Australia, with many other countries, finds itself in doubt over issues of energy security, climate change and energy finance and troubled more than ever by policy and regulatory risk.

This new energy world is characterised by a wide range of interacting elements that include:

- i. the availability via the internet of a vast array of information and opinion on climate and energy issues from a wide range of sources, some of course more authoritative than others
- ii. the rise of ‘social media’
- iii. the continuation of ‘the Arab Spring’ - political and social unrest in many of the oil producing countries
- iv. the phenomenon of political activism
- v. sub-optimal public education about climate and energy issues
- vi. inadequate levels of community consultation
- vii. rising levels of global energy demand

- viii. rising global energy prices (with great volatility in oil prices)²
- ix. rapidly rising domestic electricity and gas prices, particularly in Australia, where a doubling or trebling of domestic gas prices has been experienced
- x. a deepening interdependence of energy-exporting and energy-importing nations as reflected in increased trade and investment patterns
- xi. the difficult ongoing geopolitics of oil supply
- xii. increased public concerns over climate change
- xiii. a continuing stalemate in global climate change negotiations
- xiv. the need to further review safety standards in the oil, gas and nuclear industries following Macondo, Montara and Fukushima
- xv. especially in North America, a gas glut resulting from technological advances in shale gas extraction
- xvi. particularly in Australia, a boom in LNG export projects
- xvii. also particularly in Australia, the imposition of increased taxes and royalties on energy production to give communities 'a more equitable share' of the gains
- xviii. the imposition in many countries, including Australia, of a plethora of 'clean energy' policies that have little or no immediate effect on global emissions
- xix. the continuing involvement of state-owned enterprises in otherwise competitive energy markets
- xx. in the aftermath of the GFC, a disturbing deleveraging of energy investments and
- xxi. the post-GFC requirement on the banking industry to adjust to the Basel III regulatory reforms and standards relating to bank capital adequacy and bank lending practices

to which a layer of policy and regulatory risk has been added by governments.

In aggregate, these factors make for a high-risk investment climate over which there is no international regulation. Individually, some factors are susceptible to domestic regulation but most are not.

SUSTAINABILITY

There is a general consensus that sustainability is a unifying concept and that the world should advance towards a low-carbon society by reducing greenhouse gas emissions.³ Despite this, domestic policies in Australia and

² In July 2008, the oil price soared to a record level of US\$147/bbl. It was to collapse in 2009 when the world plunged into the GFC, a global financial crisis of historic severity. The oil price that year bottomed at \$35/bbl but has since recovered to trade in the range of around \$85-100/bbl.

³ The Energy Policy Institute of Australia has itself postulated for many years that the world must transition to a low-carbon society as quickly as it can afford to do so. Policies to facilitate

many other countries have tended to discriminate either in favour of or against particular forms of renewable energy and particular forms of non-renewable energy, with little or no appreciable effect on the goal of global emissions reduction and with little regard to the affordability of the various technological options.

The Australian Minister for Resources and Energy, the Hon Martin Ferguson, had sought the right balance between energy security and measures to reduce greenhouse gas emissions. As he said in October 2008:

“No discussion about energy and resource security can overlook the importance of climate change ... We are committed to reducing emissions with the least economic cost while maintaining reliable and affordable energy supplies and the international competitiveness of Australia’s industries.”

In the public debate about decarbonisation of energy production and use, there is often considerable hostility among promoters and opponents of particular technologies and particular points of view, well beyond what might be called healthy competition and healthy debate. This needs to be taken into account in energy policy formulation and implementation.

THE NEED FOR POLICY ALIGNMENT

Australia must give close ongoing attention to the need for policy alignment, particularly the need for an integrated energy policy and clean energy policy, as well as the need of investors for a facilitative taxation regime. With Australia’s federal system of government, this will require a great degree of further cooperation between the Commonwealth and the States.

The importance of policy alignment has to do with the fundamental importance of energy in modern society and the need for huge levels of investment in the energy industry.

Energy is the engine for our economic future. As the draft EWP conceded:

... energy is important to almost everything we do:

“Access to secure, reliable and competitively priced energy underpins almost every facet of life in Australia’s modern economy. Without energy, our society cannot function.”

... there must be a secure and dependable supply:

“Continued reform to our energy markets and networks will ensure that they are well regulated and meet our energy needs efficiently with a secure and dependable supply.”

... Australia’s energy-intensive industries must be catered for:

this transition must, however, provide certainty for investors and all options must be kept open.

“Energy is ... a commodity that is transformed and traded. Energy-intensive industries have prospered in Australia and they make a substantial contribution to the economy and society, particularly in regional Australia.”⁴

... and Australia’s exports, which account for 68% of our energy production, must be catered for as well.⁵

The need for integrated energy policy and clean energy policy is by no means confined to Australia. According to the 2011 Corporate Accountability Report of American Electric Power, a 39,000 MW power utility that serves over five million customers in the United States:

“We are in desperate need of a comprehensive federal energy policy that addresses environmental concerns and energy security and establishes a long-term energy strategy for the nation. Only a coordinated national plan can ensure our energy security and reliability. Without it, energy-related decisions will, out of necessity, be more tactical than strategic.”

Australia’s energy policy was however subordinated to clean energy policy when the two should have been aligned or integrated from the beginning.

The draft EWP had spoken of ‘the end of an era of cheap energy’ in Australia. The final EWP seemed to carry an air of resignation about higher domestic energy prices, especially gas prices.

In this context, the use of the word ‘final’ in relation to the EWP is inappropriate. The Minister claimed in his Foreword that the EWP’s policies and priorities provided *“the soundest possible basis for the continued development of our energy markets and resources.”* In reality, Australian energy policy reform is a work in progress. Even more importantly, the implementation stage looms as more challenging than the stage of policy formulation.

ENERGY SECURITY

To date, the impact of oil supply constraints has been cushioned in most countries by the increased utilisation of coal (which has been by far the most important factor)⁶ as well as by the increased utilisation of natural gas, renewables and nuclear power.⁷

⁴ Draft EWP p 1.

⁵ Australia’s energy exports accounted in 2010-11 for 68% of energy production and one-third of total commodity exports - with a value of \$69 billion – of which \$43 billion was from metallurgical and thermal coal and \$10 billion from LNG: Bureau of Resources and Energy Economics (BREE), *Resources and Energy Quarterly*, September Quarter 2011, p 133.

⁶ Coal has been the main fuel that has come to the rescue of constrained energy supply, accounting for almost half of the growth in energy consumed globally over the decade: IEA, ‘World Energy Outlook 2011.’

⁷ As of a year ago, 65 nuclear power stations were under construction in 15 countries. Some have stalled following the Fukushima disaster. Safety standards are being reviewed

Although energy security is said to be of high priority, the EWP recorded that Australia has a “generally positive” energy security outlook and that its policy positions it well to respond to geopolitical or other events that may disrupt energy markets or supply chains.

Energy policy should cater for the worst coming to the worst but the EWP rejects this as “very costly and largely unnecessary”. That of course depends on what one has in mind to do about it. In the event of a future energy crisis, essential services must continue and industry must somehow cope. For the transport sector, for example, there is already a case to work towards the development of substitute fuels and to invest in the ability to switch both fuels and supply sources. Much the same can be said about the defence sector.

Australia’s energy security should be the paramount energy policy priority. Energy is too important to the entire economy for it not to be. How to manage the risk of future supply disruptions requires ongoing, vigilant review.

THE ENERGY INVESTMENT AND FINANCING CHALLENGE

The Energy Policy Institute believes that investors are increasingly nervous about financing energy projects in Australia. This applies to both renewable and non-renewable projects.

The domestic banking industry may be slipping back to a role of little more than a supplier of short-term or bridging finance. Certainly, a much higher component of equity will be required in energy investments for the foreseeable future.

According to the EWP, Australia’s total energy investment requirements to 2030 could be as high as \$530 billion, made up of \$240 billion for domestic energy and \$290 billion for energy resource development:

“While these estimates appear daunting, they are achievable, particularly as the investment will be spread over several decades and different components of the market.”

The estimates are daunting indeed. Much of the required capital – debt and equity – will need to be sourced from overseas and there is no certainty that it will arrive. As the EWP acknowledged:

“The footloose and competitive nature of foreign capital means that Australia must maintain attractive and stable investment and policy frameworks, particularly if the current turmoil in international financial markets is sustained. This includes ensuring that energy markets provide opportunities for fair commercial returns.”

internationally. Much of the new nuclear power generation capacity is being built in China, where 27 nuclear power stations are currently under construction. The UAE and Saudi Arabia are also moving ahead with nuclear generation programmes.

In this context, governments must take decisive steps to define and implement a program of reform that provides clear direction to markets during a period of heightened public debate about our energy future. The Australian Government has acted to provide long-term certainty to the market by implementing carbon pricing and other critical clean energy measures. However, the lack of bipartisanship on key climate policies continues to generate uncertainty and risks for investors in electricity generation, downstream energy users and emissions-intensive industries.”

Exactly. There is continuing long-term uncertainty in Australian energy markets. As a statement of energy policy, this falls considerably short of what is required to attract the required capital. It is not enough to attribute Australia’s investment uncertainty to a lack of bipartisanship on climate policies. More work needs to be done to reduce investment risk and this calls for close ongoing collaboration between governments, industry and investors.

Australia’s investment requirements are unlikely to come from traditional sources. It is to be expected that not only the sources of finance but the means and terms of its procurement will change. The Energy Policy Institute and KPMG are undertaking research on this, to be completed by the Energy State of the Nation (ESON) forum in Sydney in March 2013.

Public animosity to Australia’s high carbon price could ultimately bring about a change of government (the next federal election must take place by the end of 2013). If there were to be a change of government, the carbon pricing scheme may be repealed.

Repealing the carbon price would pose another challenge because most of the money that it raises has been directed towards cutting income tax and increasing pensions and other benefits. It would not reduce the public expectation for the government to ‘do something’ about reducing greenhouse gas emissions, nor should it. The closer the election gets, the greater will be the spotlight on the feasibility of the Opposition’s ‘Direct Action Plan.’

At least until the election, the EWP provides the Australian policy context in which energy investment decisions must be made. It lays out four priorities.

THE EWP’S FOUR POLICY PRIORITIES

(i) Energy markets – and the issue of domestic access to gas

The EWP’s first policy priority is to reinvigorate the energy market reform agenda. The Commonwealth is laudably committed to the maintenance of well-functioning, competitive energy markets.

Transparent, competitive markets that are free of government intervention will perform the function of supplying energy most efficiently.

The States have a key role to play here. Electricity and gas market reforms are the joint responsibility of the federal and state governments under the auspices of the Coalition of Australian Governments (COAG). The Institute believes that COAG should take decisive steps to complete the competitive reform process that started a decade ago and that the States should quickly complete the process of privatising their electricity assets.

Domestic access to gas has shown itself to be the most controversial current energy policy issue. Australian gas producers may have been a little quick to divert domestic gas to new LNG export projects at oil-related prices, which are much higher than historic prices in the domestic market. This has caused tightness in domestic gas supply, much to the understandable chagrin of Australian manufacturing industry, which has made calls for the government to intervene in the market.

The government has shown no willingness to intervene in the gas market and is to be commended for that because, in the absence of export controls as in North America, there is no obvious correction the government could make to address the problem. Intervention could in fact exacerbate the problem.

Gas market tightness should dissipate when new production is brought on line but this is easy to say. It will require substantially increased investment in upstream production, gas pipelines and other infrastructure. The EWP does not however lay out a pathway as to how or when this will happen. Adequate new production could fail to be brought on line unless there is a pathway and an action plan amongst governments, industry, consumers and communities to ensure that it is.

Roles and responsibilities for actionable items need to be allocated.

(ii) The 'clean energy economy' and the critical role of technology

The second EWP policy priority relates to climate policy and principally to the carbon price.

In addition to presently maintaining the renewable energy target of 20% renewables by 2020, Australia has legislated to impose a price on carbon emissions on its 500 largest emitters which came into effect on 1 July 2012.

The government's declared goal is '*to drive a long-term transformation to a clean energy economy' ... [by] the efficient pricing of carbon ...*⁸ In the CEF plan, the government declared:

⁸ EWP p 86.

“Australia’s emissions are rising ... but we have committed to reducing them by at least 5 per cent compared with 2000 levels by 2020, and 80 per cent by 2050”.⁹

As the draft EWP had warned, this is a massive challenge.¹⁰ Just how ‘clean’ the Australian energy economy can become, by what steps, at what cost, and whether the commitment is affordable, remains unknown. As the final EWP has confessed:

“Many of the technologies likely to be needed to meet our clean energy goals, particularly in the long term, are not yet commercially available or mature.”¹¹

In addition, ‘efficiency’ is not a term that can be used to describe a price that is fixed or can be altered by legislation or that can be set by future political decisions on economy-wide emissions caps.

Under the CEF plan, economy-wide emissions caps will not be set by markets; they will remain under political control. The government has established a Climate Change Authority to provide it with independent advice but the government will make the final decisions.¹²

More fundamentally, the policy objective as articulated may in reality be impossible since global atmospheric pollution is beyond the influence of Australian energy and carbon prices.¹³

Sound policy should not, and cannot, be built on a foundation of false hope.

Also of concern in terms of policy is that very little of the revenue collected from the carbon price would be used to accelerate the rate of low-emissions innovation.

The effective solutions to climate change are certain to come from technological innovation, which depends on a combination of capital, skills, experience and collaboration between parties. As barriers to cross-border trade and investment markets are overcome, the transfer of new technology from one country to another will accelerate.

There is no place for technology bias, or any other form of bias, in energy policy. The Draft EWP summed it up well:

⁹ CEF plan, p xi as further elaborated at pp 14-15. These commitments are part of climate policy and are not entrenched in legislation.

¹⁰ *“This transformation will be a massive challenge. Policy goals for clean and sustainable energy must be integrated with the need for ongoing energy market development and delivery of reliable, competitively priced energy if they are to prove enduring. The costs and risks must be manageable for the economy and consumers and energy security must be maintained”*: Draft EWP p 198.

¹¹ EWP p 86.

¹² CEF plan p 27.

¹³ As the Treasury has conceded, *“Global emissions are what matter for reducing the risks of dangerous climate change”*: Treasury, ‘Strong Growth, Low Pollution: Modelling a Carbon Price,’ Overview, July 2011, Canberra, p 4.

“The more we limit our energy options, the higher will be the risk and cost of meeting our climate change and energy goals.”¹⁴

(iii) Resource development and the investment environment

The third EWP policy priority is to further develop Australia’s energy resources - for both domestic and overseas consumption.

The energy industry, like other capital-intensive industries, needs a well-balanced, non-discriminatory, robust and stable policy environment without direct or indirect barriers to investment. It is impossible to over-emphasise its importance.

The biggest question remains whether Australia will be able to attract the needed investment in a timely manner.

Barriers to investment must be lowered, whether they are absolute barriers, regulatory obstacles, lack of infrastructure capacity, transport barriers, taxation barriers, other financial barriers or just the cost, difficulty and uncertainty of doing business.

(iv) A resilient policy framework

The final EWP policy priority is to strengthen the resilience of the energy policy framework itself to provide greater policy predictability. This is a meritorious initiative. It will be pursued by:

- a regular policy review every four years
- a national energy security assessment every two years, including a risk preparedness audit
- an improved energy information base, including:
 - an energy resource assessment and
 - an energy technology assessment.

The Energy Policy Institute nonetheless sees the alignment of all policies as being the most important priority, most notably the integration of energy and clean energy policies and the development of a more attractive taxation regime. Another priority should be the early completion of the decade-long COAG energy reform process.

Furthermore, the Institute sees particular merit in a systematic and transparent process of implementation and monitoring between the formal strategic review periods.¹⁵ A systematic process with key stakeholder participation would keep

¹⁴ Draft EWP p 197.

¹⁵ The concept of a systematic approach to the review of energy and climate policy, called the APEC Energy and Climate Pathfinder Scheme, was first put forward by the Energy Policy Institute of Australia at a meeting of the APEC Energy Working Group in Tokyo in March 2010.

track of technology developments and policy implementation, would help to limit sudden changes in policy and would reduce the risk of jumping from one issue to another.

As well, in a rapidly changing energy investment landscape, four years between regular reviews may be too long - two years may be more appropriate. A government policy is not of course a formal long-term plan but investors in the energy industry constantly review their long-term plans for changes in underlying assumptions. If China can do this annually, so can Australia.

Irrespective of the time between reviews, the Energy Policy Institute strongly advocates an apolitical and technology-neutral approach.

CONCLUSION: COLLABORATIVE EFFORTS ARE NEEDED ON POLICY IMPLEMENTATION, IDENTIFICATION OF REALISTIC PATHWAYS AND INVESTMENT FACILITATION

The energy industry in Australia has found itself in a new energy world, operating in a less safe investment environment. The industry is troubled by a high level of policy and regulatory risk, mainly due to a lack of policy alignment (most notably the failure to integrate energy policy and clean energy policy) and the absence of an attractive taxation regime.

Financiers of both renewable and non-renewable energy projects in Australia are now looking for 'investment grade' energy policy to reduce their policy and regulatory risk.

The EWP contains a great deal that is valuable and it has undoubtedly taken Australia forward. However, after such a long time in its gestation, its release came as something of an anti-climax. The Commonwealth government's declaration of its continuing commitment to market reform, competitive markets and competitively priced energy was reassuring to investors but, over the last five years, the world of energy has changed; all remaining barriers to market entry need to be removed, the risks and costs of doing business need to be reduced and policy reform needs to be put into action, with the States playing their proper part.

In reality, energy policy reform in Australia is a work in progress and much more remains to be done. Australia does not yet have an 'investment grade' energy policy. It needs to work on developing one with the energy industry and the investment community.

Even more importantly, with the EWP now behind us, it is up to the Commonwealth and State governments, industry, investors and communities to develop realistic pathways to proceed with the implementation stage. This will require close ongoing collaboration. It is time that everyone got on the bus.

The Energy Policy Institute intends to explore some of these potential pathways at its Energy State of the Nation (ESON) forum on 22 March 2013.¹⁶

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¹⁶ The Minister for Resources and Energy, the Hon Martin Ferguson MP, the Shadow Minister, the Hon Ian Macfarlane MP, and the New South Wales Minister for Resources and Energy, the Hon Chris Hartcher MP, have accepted invitations to speak at ESON 2013. For more information on the ESON 2013 agenda and other events of the Energy Policy Institute, or to be included on its mailing list, see www.energypolicyinstitute.com.au

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