



Energy White Paper 2014 – Issues Paper submission template

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Issues for comment are listed against each of the Chapter Headings. In making your submission, you are welcome to make comment against some or all of issues in the fields provided. A field for general comments is provided at the end of the template.

1. The Security of Energy Supplies

The Government seeks comment on:

- ways community expectations can be better understood and reflected in reliability standards;
- the value of developing fuel reserves to meet Australia's international oil security obligations, and augment domestic security;
- ways to increase new gas sources to meet demand and measures to enhance transparency in market conditions; and
- issues relating to the regulation of energy infrastructure.

Please provide any comments on The Security of Energy Supplies below:

Regulation of energy infrastructure

The current regulatory framework governing network infrastructure was developed in an era of predictable and rising demand for network services. Recent market trends suggest that this is no longer the case. Consequently, an important aspect to consider in relation to the regulation of energy infrastructure is the impact of the recent reduction in demand for regulated and monopoly services.

Networks have been upgraded and enhanced based, in part, to meet rising peak demand and energy consumption in the NEM. As noted in the Issues Paper, this investment in energy network infrastructure has been a major contributor to increased energy prices. The NEM has, however, experienced a decline in grid connected energy consumption over several years. As the current regulatory arrangements allow network businesses to recover their fixed and operating costs (for both gas and electricity network businesses), ongoing reductions in consumption will see these costs being recovered across a diminishing consumption base, which effectively translates into increasing average prices for network services. At the extreme, this could lead to customers exiting the grid all-together which would seem to be a sub-optimal outcome given the benefits provided by an interconnected network.

Network tariff reform has been suggested as a means to address this issue of falling consumption and the recovery of network investment. Hydro Tasmania suggests that a review of network tariff structures should be considered within the broader need for a revamped regulatory framework governing approaches to non-network investment alternatives, assets valuation and cost recovery mechanisms.

2. Regulatory Reform and Role of Government

The Government seeks comment on:

- priority issues, barriers or gaps within the COAG energy market reform agenda;
- possible approaches and impacts of review of tariff structures including fixed network costs, further time-of-use based electricity tariffs and the use of smart meters;
- possible measures to promote greater price transparency in gas markets; and
- areas where further privatisation of government-owned assets would contribute to more effective regulatory frameworks and better outcomes for consumers.

Please provide any comments on Regulatory Reform and Role of Government below:

Energy market governance

COAG has played a key role in the development of the energy market in Australia being the principal institution to develop and coordinate energy policy between Commonwealth and state governments. The Australian energy industry continues to face a number of challenges including the need for significant investment in energy infrastructure particularly over the next two decades. COAG can play a key role in facilitating policy coordination between jurisdictions in order to provide a stable, long-term policy framework to secure the required investment.

In addition to coordination between jurisdictions, it would be worthwhile to consider the roles of key government and regulatory agencies and how decisions affecting Australia's energy markets are made. While generally speaking, the current arrangements have worked well, there appears to be an opportunity for SCER to play a greater role in coordination between agencies and consultation process to articulate how reform options under consideration in different review processes would work together.

Hydro Tasmania supports the review of the energy market bodies being undertaken this year. Consideration of how the AEMC's role as rule maker and developer of policy fit alongside one another would be timely given that the AEMC has been in operation for more than seven years now. Consideration also needs to be given to the role and functions of AEMO. Equally, the Australian Government's proposal to split the Australian Energy Regulator from the ACCC is a sensible initiative.

COAG's agenda

Gas market

In relation to COAG/SCER's agenda, Hydro Tasmania believes that SCER should continue to focus on the development of the gas market in eastern-Australia as this is a key aspect of energy market reform in which SCER will have an important role to play. Hydro Tasmania is making a submission to the Eastern-Australian Gas Market Study which details our comments on gas market development in Australia.

Small embedded generation

Hydro Tasmania believes that COAG should also investigate the growth of small embedded generation and the implications that this is having for the energy market. Embedded generation has grown in recent years with this trend expected to continue and potentially strengthen with improvements in technologies (including battery storage). The rise of small embedded generation (and corresponding demand reduction) presents a number of challenges for the energy market and consumers. These changes will place pressure on the energy supply chain and will require a fundamental reappraisal of the regulatory arrangements, to ensure they remain relevant and affordable and offer sufficient consumer protection. From a retail perspective, consideration should be given to how the licencing regime is applied across various market participants including those who might not be considered traditional energy companies. For example, there have been a number of recent applications from entities for exemption from the requirement to hold an electricity retailer authorisation. These entities do not face the same regulatory requirements as incumbent retailers. With embedded generation growth expected to continue, a review of the retail licencing regime should therefore be undertaken to ensure that the regulatory framework provides for competitive neutrality between incumbents and new entrants and that risks for consumers are appropriately managed.

Retail regulation and national retail framework

Regulated retail prices and retail competition as well as the national retail framework are important aspects of the retail reform agenda. The regulation of retail prices still remains a key barrier to improving retail competition in the NEM. While the phasing out of regulated pricing in South Australia and Victoria has been welcome, there is further work required to ensure the other states follow suit. The contestable smart meter roll outs agreed by Australian energy ministers at SCER in 2012 will only succeed after retail price deregulation.

The establishment of a single National Energy Customer Framework (NECF) has been beneficial in establishing a consistent framework but it has not delivered the expected productivity improvements. Specifically, the NECF has in a number of areas increased the regulatory burden rather than improving the overall efficiency following the amalgamation of retail energy codes. And while the NECF provides strong consumer protection, it does not make customers' interactions with the market any easier or simpler. In light of the need to make customers' experience with energy simpler, there needs to be a greater effort made in streamlining the current framework.

3. Growth and Investment

The Government seeks comment on:

- commercial or market initiatives that could enhance growth and investment in the energy and resources sectors;
- areas where approvals processes could be further streamlined while maintaining proper environmental and social safeguards;
- further ways that regulatory burdens could be reduced while maintaining appropriate levels of disclosure and transparency in energy markets; and
- the impacts of variable land access policy and ways the community could be better informed and engaged on development in the energy sector.

Please provide any comments on Growth and Investment below:

4. Trade and International Relations

The Government seeks comment on:

- how to grow the export of value-added energy products and services;
- ways to remove unnecessary barriers to continued foreign investment in Australia's energy sector;
- ways to strengthen support for access to export markets; and
- ways to support business to maximise export opportunities for Australia's energy commodities, products, technologies and services, including the value of Australia's participation in the variety of international forums.

Please provide any comments on Trade and International Relations below:

Export of services and access to export markets

Australia's long term prosperity will be built on our ability to adapt to changing international dynamics and our ability to build upon our strengths. Investment in clean energy sector continues to remain strong globally with global investment totalling \$244 b in 2012 (REN 21). Strong growth in investment is leading to global demand for energy services. This demand is expected to continue and is being influenced by several factors including rising electricity consumption, particularly in non-OECD countries, as well as global targets to increase energy access and to reduce greenhouse gas emissions.

The Australian clean energy industry has a broad range of skills and expertise that can be utilised to meet the growing global demand for skills.

Hydro Tasmania's consulting arm, Entura, exports Australian expertise internationally. Entura offers a

range of consulting services covering the planning, design, construction, operation and maintenance of energy and water projects. Entura works in Asia, the Pacific and southern Africa and has international offices in New Delhi and Cape Town. The services that Entura offers internationally are backed by a century of experience in developing and operating power and water infrastructure in Australia. Through the export of Australian skills, Entura is able to leverage from its Australian knowledge to help support other countries develop their own energy and water infrastructure to meet their energy and sustainability targets.

In December 2012, the Entura clean energy and water institute was launched and provides a further avenue for the export of Australian expertise to support clients build their capability for a cleaner water and energy future amongst our neighbours. The institute also provides an opportunity to showcase Australia to clients and brings downstream revenue into the economy as international participants spend on accommodation and other activities.

The success of Australian energy industry to capture the growing demand for energy and energy services will require ongoing innovation and collaboration between Australian industry and other countries. An ongoing role for the Federal Government in promoting, development and export of Australian skills can help grow the industry and the deployment of low emissions technologies both within Australia and internationally.

The government can further support the growth of export services through a variety of means including: trade mission support; technology exchanges; international partnerships; market entry introductions to key government agencies and utilities; and support to build trade relations and/or remove barriers. The Australian government can also support Australian industry to meet Australia's aid and development programme through the purchase of Australian expertise to meet targets in priority countries.

Foreign investment

Hydro Tasmania has direct experience in foreign investment including through our strategic alliance with Chinese energy company Shenhua Group. The alliance with Shenhua includes a joint venture incorporating the Studland Bay and Bluff Point Wind Farms (140 MW) at Woolnorth in north-west Tasmania and the 168 MW Musselroe Wind Farm in north-east Tasmania. The strategic agreement builds upon the excellent relationship that has developed between Hydro Tasmania and Shenhua over the past few years. Continued foreign investment will require stable policy settings to provide long term investment signals.

Value of engagement in international forums

The Australian Government has been a key player in international energy forums. Hydro Tasmania strongly supports the Australian government's ongoing active participation in a variety of international forums. Through engagement in policy forums such as International Renewable Energy Agency (IRENA), the International Energy Agency (IEA) and the Clean Energy Ministerial (CEM), the Australian Government demonstrates to other countries Australia's commitment to clean energy development and deployment. Australian government engagement in international forums also supports the growth of Australia's renewable energy sector.

5. Workforce Productivity

The Government seeks comment on:

- the nature of any current skills shortages being experienced and how these could be addressed by and with industry;
- the capacity of industry and education sector-led programs to meet long-term training and skills development needs of the energy and resources sectors; and
- specific long-term training and skills development needs for alternative transport fuel, renewable energy, energy management and other clean energy industries.

Please provide any comments on Workforce Productivity below:

There is an important relationship between government frameworks to support renewable energy and the industry's capacity to develop workforce skills. The Issues Paper noted the need to develop the right skills to encourage the development of clean energy technologies; this is particularly relevant in the area of clean energy research and development. The RET is the primary driver of renewable energy industry development in Australia. It has seen growth in both small-scale and large-scale technologies and the development of skills and expertise within Australia. The CEC's Clean Energy Australia report notes that at the beginning of 2013 there were approximately 24,300 people employed by the renewable energy industry. The vast majority of these jobs would be due to the RET. Any changes to renewable energy policy in the future are likely to impact the level of employment in these sectors and as such, the Government needs to be mindful of the long-term policy signals it provides. The combination of the RET and ARENA as well as the promotion of Australian skills and technologies internationally will be important if employment in the renewable energy sector is to continue to grow.

It is also important to recognise that the specific long-term training and skills requirements of the energy industry are dependent on the expected future pathway of the energy industry. Stable government policy frameworks that support the long term development and deployment of renewable energy will lead to enhanced demand for skills in renewable energy. The shape and extent of such programs or incentives will govern the specific type and quantity of such skills and expertise. For example, the Clean Energy Council survey of renewable energy skills and training that was referenced in the Issues Paper identified that there was a lack of training courses covering renewable energy technologies. That estimate of the skills gaps and training needs was based on particular assumptions about the renewable energy market that now need amendment. However, the conclusions reached in the research hold true that even with smaller market size, the skills base will need lifting and support for training providers to extend their scopes will be needed.

6. Driving Energy Productivity

The Government seeks comment on:

- the current suite of energy efficiency measures, ways these could be enhanced to provide greater energy efficiency or possible new measures that would enhance energy productivity;
- the use of demand-side participation measures to encourage energy productivity and reduce peak energy use; and
- measures to increase energy use efficiency in the transport sector.

Please provide any comments on Driving Energy Productivity below:

Energy productivity will be driven by a number of important elements including: energy efficiency, demand side participation and price deregulation.

Improving energy efficiency across the electricity and gas markets remains a sound and worthwhile policy objective. One of the key issues in relation to energy efficiency which needs to be addressed is improving the way energy efficiency policy is made across all jurisdictions, in particular better integration within energy departments and within the purview of energy ministers and SCER. The consultation on a national energy efficiency scheme in 2012 highlighted more of the challenges in this policy area. While the Hydro Tasmania Group supported the general premise of replacing the four state energy efficiency schemes with one national scheme, in the end the consultation ended up focusing more on the amalgamation of the existing schemes than developing a model for an 'efficient' national energy efficiency scheme. If pursued, amalgamating the existing schemes would need to avoid adopting the respective obligations and inefficiencies of the schemes. Amalgamation would need to focus on the strongest aspects of the respective schemes to ensure the benefits of energy efficiency can be realised with minimum administrative and compliance requirements.

Alongside energy efficiency, the Hydro Tasmania Group believes that greater demand side participation (DSP) must be unlocked within the Australian energy market if Australia is to achieve the level of energy productivity required to meet its future energy needs within cost and climate constraints. Smart meters

are an integral element of this and the Hydro Tasmania Group looks forward to state governments following through on their collective 2012 commitment to contestable roll outs. Like any policy, DSP policy must be efficient and targeted at addressing barriers and/or enhancing incentives. Hydro Tasmania supports the commitment to conduct a cost-benefit review of the Demand Response Mechanism proposal that flowed from Power of Choice.

Price deregulation is also a critical step toward lifting energy productivity through the empowering of customers to take control of their energy consumption and for retailers to be able to develop the necessary tariffs and services to meet their customers' needs.

7. Alternative and Emerging Energy Sources and Technology

The Government seeks comment on:

- ways to encourage a lower emissions energy supply that avoids market distortion or causes increased energy prices;
- the need to review existing network tariff structures in the face of rapidly growing deployment of grid-backed-up distributed energy systems, to ensure proper distribution of costs;
- additional cost-effective means, beyond current mandatory targets and grants, to encourage further development of renewable and other alternative energy sources and their effective integration within the wider energy market;
- how the uptake of high efficiency low emissions intensity electricity generation can be progressed;
- any barriers to increased uptake of LPG in private and commercial vehicles and CNG and LNG in the heavy vehicle fleet; and
- any barriers to the increased uptake of electric vehicles and advanced biofuels.

Please provide any comments on Alternative and Emerging Energy Sources and Technology below:

Government objectives and policy plays a critical role in setting the investment framework for the Australian energy sector. The Federal Government has indicated support for reducing Australia's greenhouse gas emissions and has committed to a 5% emissions reduction target for 2020. The Australian stationary energy sector is responsible for approximately a third of annual domestic emissions and as such, reducing emissions in the stationary energy sector is fundamental to reducing national emissions and, increasingly, to maintaining international competitiveness. National energy policy must be aligned with these goals and must also drive the required change.

The Government should make a clear commitment to reducing Australia's energy sector emissions over time. This will signal to investors that Australia intends to build on its world class renewable resources and that the Federal Government will support the ongoing development and deployment of low and zero emissions technologies.

In the absence of policy intervention it is highly unlikely that Australia's emissions would fall. At its core this is because Australia's lowest cost energy, land use, transport and manufacturing options are also some of the most greenhouse gas intensive. This is illustrated by Commonwealth emissions modelling done for the previous Government that shows that under business as usual conditions, Australia's emissions will grow considerably over the period to 2050. As a result, targeted policy is essential if Australia is to meet future emissions reduction commitments and realise a low carbon energy system that provides long-term national competitiveness. Australia currently has a policy framework including a price on carbon, the national Renewable Energy Target (RET) and funding for early stage technologies through the Australian Renewable Energy Agency (ARENA). Each of these, targets a specific gap that contributes to developing, deploying and commercialising clean energy technologies and practices. If the carbon price is repealed, it will heighten the importance of the RET as well as the role of ARENA in developing and deploying additional renewable energy in Australia.

Hydro Tasmania strongly supports the future development and deployment of additional renewable energy in Australia. The Federal Government can support the development of renewable energy and the transition to lower emission energy supply through a policy framework that provides industry with long term signals to support investment and innovation. Government programmes like the RET and those administered through ARENA have proven to be an efficient and effective means of encouraging investment in renewable energy.

In order to ensure a least cost transition to a lower emissions energy supply, it is important that Government policies are long-term and can provide confidence to investors in low or zero emissions technologies. It is also important that low or zero emissions generation sources are not disadvantaged against incumbent or conventional generation sources either through: planning requirements;

environmental approvals; or through grid connection arrangements.

The Issues Paper makes comment on the relationship between system reliability and renewable energy penetration. A variety of studies have shown that system reliability will not be affected at higher levels of renewable energy penetration; this includes the recent AEMO study that modelled the potential for 100% renewable energy in Australia.

In practice, renewable energy has been shown to provide reliable supply in a variety of environments. For example, Hydro Tasmania has demonstrated that renewable energy can contribute a significant share of electricity generation through the work undertaken on King Island. The King Island Renewable Energy Integration Project (KIREIP) incorporates a portfolio of renewable energy technologies including solar and wind. KIREIP has achieved 100 per cent generation energy penetration for sustained periods through the use of enabling technologies.

On a larger scale, the NEM has continued to operate effectively when renewable energy has contributed a large share of generation for sustained periods. As a flexible and readily available renewable energy, hydropower has played a key role to provide back-up generation for networks and variable sources of generation. Hydropower is able to start up and supply power within 90 seconds, meaning that hydropower can act as both a base load or peaking generator.

The majority of suitable sites for hydroelectricity in Australia have already been developed. There are, however, opportunities to develop mini hydropower stations and to upgrade or refurbish existing generation. Further, Australia's existing hydropower infrastructure is ageing and will require significant investment to safeguard its ongoing contribution. The national energy framework must support investment in Australia's renewable energy infrastructure to ensure a continuing and growing contribution.

General Comments

Any further comments?